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HOME STUDIES.

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BY

REBECCA A. UPTON.

"In every form of government the enduring element is in the cultivation of the soil." — *Quarterly Review*, Vol. XLIV. No. II. Art. VIII.

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PREFACE.

THE present volume is made up from the gleanings of a lifetime. Whenever facts and every-day phenomena have forced themselves on my attention, whether in books or actual experience, I have noted them down in a commonplace-book. These gleanings have nothing but plain language and practical usefulness to recommend them, verbal nicety and literary ornament being no way suited to my purpose.

My principal objects have been to bring into the compass of one small volume such information as may be useful to both housekeeper and gardener, whether residing in village, country, or city, and to keep in mind through the whole work the various fortunes of the American woman, whose life is often partly spent in cities, partly on Western prairies, and partly on Southern plantations, — perhaps begun in affluence, to be finally shorn of all but health, hands, and unfailing courage.

The receipts I have given I know to be good. Almost all are original, that is, of family origin, — not taken from books. A few have been given me by friends.

If the work should have any influence, however small, on the tendencies of the present day, not only to increase the

number of manual employments, but also to widen the horizon of observation, for woman, I shall be happy. The imaginations and feelings of women are sufficiently cultivated; but perhaps common sense is less so, because it finds less stimulus for action in the present partial education and cramped position of women. Novels, poetry, and excitement-meetings may all be very well as occasional mental condiments, but when offered as the only diet to the sex whose nervous constitution is proverbially sensitive, it may lead the physician and philanthropist to doubt whether these kinds of mental dietetics do not produce much of that nervousness, insanity, and hopeless hypochondriasis, which cause humanity to war with itself both within and without.

R. A. UPTON.

HOME STUDIES.

ACATER, *n.* An old English word. A provider, caterer, or purchaser of provisions. An acater, to understand his or her business, should know which meats and vegetables best consort with certain seasons; how to choose young chickens, by trying the flesh under the wing, seeing if the breast-bone yields to the touch, if the scales on the leg be smooth, and the spurs scarcely budded, and the claws tender and short; how to select healthy meats, by rejecting such as show a yellow, diseased appearance in the fatty portions, or a spotted, unequal surface, as if indifferently bled, or coarse, loose fibre, indicating poor feed. A good acater should make himself familiar with the most reliable brands for flour; the choicest varieties of apples for dessert, and also for culinary preparations; the difference between dry, unadulterated sugar, and that which is the refuse of the sugar-factory, — between acid and fermenting molasses, and rich, wholesome sirup. In short, a good acater and caterer should have good sense, nice observation, be something of a chemist, and a little of a Yankee.

ACCOMPANIMENT, *n.* That which accompanies. (*Worcester.*) This word seems to be principally devoted to the musical and culinary arts. One axiom with the housekeeper is never to have insipid meats accompanied with

insipid vegetables. Veal is, therefore, relieved by lemon, horseradish, pungent salads, pickles, and piquant condiments. Young onions, cabbage salad, water-cresses, and lettuce, owing to their bitter properties, are desirable accompaniments for veal. This acrimonious property should, however, be mitigated, by soaking such vegetables, before cooking, about half an hour in cold water.

A Boiled Leg of Mutton should be accompanied by mashed turnips and caper sauce.

Roasted Mutton and Venison require currant or grape jelly.

Mutton stuffed and baked, or stewed, should have tomato sauce.

Roasted Turkey is usually served, accompanied by a slice of boiled smoked tongue, celery, and cranberry jelly. Mushrooms and mushroom sauce are always desirable with roasted poultry and game.

Boiled Turkey, with oyster sauce; cauliflower, if in season.

Roasted Goose, with apple sauce and onions.

Roasted Chicken, with stewed tomatoes, summer-squash, salsify fritters, and rice croquets. If out of season for summer-squash and salsify, rice croquets, onions, and tomatoes are all desirable accompaniments. Tomatoes are easily preserved in tin canisters, kept air-tight, through the winter. Celery should, if possible, always be on the table with roasted chicken; asparagus, if in season.

Boiled Chicken, with egg sauce or oyster sauce, or parsley sauce. A small bit of sweet, young pork boiled with it. Asparagus, if in season.

Roast Beef, with macaroni, hominy, boiled rice, if in winter, squash; tomatoes.

Boiled Beef, with carrots, cabbage, parsnips.

Roasted Duck and Game, with currant jelly, mushroom sauce, and onions.

Boiled Salt Codfish is accompanied with carrots, beets, and onions, with egg sauce and melted pork gravy, commonly known as dip.

Tongues and Sounds are served with the same vegetables and sauces.

Fried Fish are mostly served with crisped parsley.

Baked Fish, with anchovy sauce; pickles and lemons being always on the table.

Boiled Salmon, with caper sauce, egg sauce, and anchovy sauce.

Potatoes and artichokes are served, in their various ways, with most dishes, though with plain boiled dishes mashed or fried potatoes would be an anomaly. They are simply boiled whole for such dishes.

Of course, these are merely suggestions; and offered principally to the young housekeeper as inducements for her to look for and adhere, whenever compatible, to palatable affinities.

ACCOUNT-BOOK. A book containing accounts. Every housekeeper will find herself repaid for her trouble if she allow her register of personal and household expenses to expand into a kind of commonplace-book. For example, if she live in the country, under the head of Animals, let her register facts with regard to her poultry, cows, &c., reserving several blank pages to be filled up as occasion may offer. Under the head of Plants, reserving the blank pages as before, set down all reliable facts and observations with regard to soil suitable to a certain class of plants, and the habits of such plants as she may be cultivating; what class of insects infest them, and by what means they are best destroyed. If she be a mother, let her make an entry, under the general head of Disease, of the rise, progress, and departure of different diseases, as experienced by her children.

In short, whenever any important fact offers itself, let it be put down under some general head, making an index at the end of the book of each head, and the number of the page on which each subject is placed. This is the only safe way of being sure of your facts. Medical men know this; and after listening to statements at college meetings, they inquire of the speaker, Did you at the time make an entry of these things in writing? If the reply is in the negative, they refuse to accept the matter, whatever it may be, as reliable data.

ACIDS. Liquids and substances which have a sharp taste, and the property of changing vegetable blues to red. This word is now used by chemists for a substance which has not these properties, but has the capability of combining with, and neutralizing, alkalies, various earths, and metallic oxides, and in these forms is called salts.

In most plants we find vegetable acids.

Tartaric Acid is discovered in grapes, tamarinds, white mulberries, dandelions, &c., &c.

Citric Acid exists in lemons, oranges, whortleberry, the onion, &c., &c.

Malic Acid is the only acid detected in the apple; it is found also in the barberry and the plum, and some other fruits. The gooseberry, currant, cherry, strawberry, raspberry, admit it with citric acid. Combined with lime, it is found in the houseleek and other plants; with both lime and potash, in spinach, rue, mignonette, and many other plants.

Benzoic Acid is in benzoin, the medicinal resin imported from the East Indies; also in the balsam which is extracted from a South American tree called Tolu, in storax, in an herb of the sage genus, called Clary, in chickpea, &c., &c.

Oxalic Acid is found in many common plants; in wood-sorrel, combined with potash; united with lime, it is detected

in the root of the medicinal squills, common rhubarb, parsley, fennel, &c., &c.

Prussic Acid exists, as is well known, in the kernel of the bitter almond, in laurel leaves, peach leaves and blossoms, &c., &c.

Gallic Acid is formed in the common nutgall, which is an excrescence formed by the puncture of an insect upon an Asiatic species of oak; also in the bark of many trees, viz. the oak, chestnut, beech, mountain-ash, sumach, birch, plum, and many others.

Besides these vegetable acids, there are other acids extracted from the mineral kingdom, which are much used in the arts. Among these is Sulphuric Acid, which is manufactured by burning sulphur, which, combined with soda, forms the well-known substance, Glauber salts. Sulphuric acid is much used in the bleaching and dyeing processes.

Carbonic Acid is obtained from various substances, and is now produced in a solid form. It exists in common air in minute quantities; in larger proportions it is poisonous.

Acids and oxygen combine with copper, and in this manner poisonous matter is generated. Culinary vessels, if made of this material, should be lined with tin. Copper-bottomed ships are avoided by marine animals on account of the poisonous properties contained in the metal. Bell-metal is copper united with tin, and, for the reason above assigned, is objectionable for culinary purposes, and, if used, must be kept religiously cleaned.

Leaden vessels for milk have been known to produce injurious effects. The air combining with the cream, the latter furthers the oxidation of the lead, and carbonic acid being attracted, a carbonate of lead (white lead) is created, which throws a poisonous property into the milk. In the old country, where extensive dairies have been kept, painter's colic has been communicated to dairy-maids through the

agency of these leaden vessels. Zinc, tin, and iron-tinned vessels are not open to these objections; and porcelain-lined vessels have now mostly superseded bell-metal preserving-kettles.

Acids are still imperfectly known. The careful housewife knows that they are powerful agents, and to be used with care. Fat, which retains its own in water, ether, and alcohol, surrenders, by gradually decomposing, when strong acids are applied to it.

ACID ACETIC, OR VINEGAR, it is well known, is made mostly from beer, wine, or cider, by exposing these liquids to the atmosphere.

A good vinegar for home consumption can be made by mixing the weight of one part of strong brown sugar with seven parts of water and a little yeast, putting the mixture into a cask where the bung-hole shall be covered with a bit of gauze or muslin, to keep out the insects. The cask must be exposed to the sun and out-door atmosphere for some weeks.

A good cider vinegar is made by putting one pound of white sugar to a gallon of cider, and allowing it to ferment four months.

French white-wine vinegar is much esteemed for domestic purposes.

The Vinaigre d'Orleans is made from the red wine of the Orleannais. Vinegars called Champagne vinegars are often made from red wines.

The excise laws of England permit the use of free sulphuric acid to the amount of one part in one thousand, but it is supposed that this amount is often increased.

Vinegar can be thoroughly purified by distillation, as we find it in the transparent distilled vinegar of commerce, though still united with water.

To make Aromatic or Cleansing Vinegar, gather a handful of lavender leaves and flowers, the same proportion of sage leaves and flowers, hyssop, thyme, balm, wormwood, and savory; take a large handful of salt, and two cloves of garlic or one small onion; mix these ingredients together, and pour over them a gallon of pure white-wine vinegar. Subject this mixture to a gentle heat (keeping the vessel in which you have put it closely covered) for three weeks. Then squeeze the herbs over the liquor, strain it carefully, and bottle it for the sick-chamber. It is a grateful relief for sudden fainting-fits, and it is often beneficial in cases of sprains and flesh-wounds.

Acetic acid, as observed above, is found in many plants and in the sap of trees; in almost all the plants it exists in the form of salts, such as the acetate of lime or potassa.

ALABASTER, *n.* A carbonate of lime, also a compact gypsum, from which beautiful ornaments are made. One method of cleansing alabaster is to leave it in pure water about ten minutes, and then rub it with a brush dipped in dry, powdered plaster. Another mode, which the author followed with great success, cleansing some exquisite Italian statuettes by the process, is to take one pint of rain-water mixed with two ounces of aquafortis, wash the alabaster with this liquid, applied with a fine brush for about five minutes, then rinse it carefully with rain-water, wipe it dry, and place it in the sun for two or three hours. Care should be taken to have the brush pass equally over the surface, so as to rest equally on every part. The aquafortis should not be allowed to touch the skin, as it burns and stains the flesh: it is a heavy liquid, yellow in color, and contains thirty parts of nitrogen and seventy of oxygen.

ALCOHOL, *n.* A liquid obtained by the distillation of wine, beer, and other fermented spirits.

The wine or wash is subjected to a slow heat, and as the spirit rises, it is easily collected in a worm surrounded by cold water. Gin is thus procured through the distillation of fermented barley or other grain; rum, from molasses; brandy, from wine. None of these processes, however, elicit pure alcohol, for the strongest brandy contains between forty and fifty per cent of water. Impure alcohol can be improved by repeated distillations, and by mixing it with some salt that has a strong attraction for water, like the salt of tartar; in this way it becomes more concentrated as it gradually parts with much of its water.

Alcohol at its greatest strength does not freeze, even in the coldest weather. It is very volatile, boiling at 176° of Fahrenheit, and in a vacuum, at 56°. It unites with water. It is combustible, burning with a white flame, without leaving any residuum.

Alcohol is exceedingly useful, through its capability of dissolving vegetable principles, so that such parts as contain medicinal virtues can be disengaged and preserved by the agency of alcohol. Such medicines are known technically as *tinctures*. Science owes an incalculable debt to alcohol, as through what are called by anatomists *wet preparations*, that is, putting objects in a perfect state into alcohol, the scientific world sees the vast collections of animal and vegetable structure and growth preserved in a perfect state in the museums and college halls of the civilized world.

Alcohol is used to keep venison warm, by serving it up on metal plates, usually of block-tin, commonly called venison-blazers, or chafing-dishes, which are hollow in the centre, and filling them with the spirit, which is occasionally ignited, at a small orifice placed on the side of the plate. Alcohol is also much used in lamps placed under kettles, to keep liquids, while on the table, at a proper temperature.

The spirits distilled from different fermented liquors, Sir

Humphrey Davy says, differ in their flavor, for peculiar odorous matters or oils rise, in most cases, with the alcohol. The spirit from malt has a taste similar to oil, brought out by the distillation of vegetable substances. The purest brandies have a peculiar oily matter, formed, it is supposed, by the action of tartaric acid upon alcohol; rum owes its characteristic taste to a principle in the sugar-cane.

ALE. A liquor obtained from the infusion of malt and hops by fermentation. The chief difference between ale and beer lies in the lesser proportion of hops used for ale.

There are a variety of ales brewed; there is strong ale, table ale, pale ale, and brown ale. Pale ale is made from barley or malt but slightly dried, and is thought to be of a more glutinous or viscid quality than brown ale, which is made from malt which has been roasted or thoroughly dried.

Ale is much lighter-colored, more brisk and sweet, than beer; neither has it the bitter taste of this last.

Porter is a kind of beer formerly called strong beer.

Beer or porter malt is dried at a higher temperature than ale malt, and owes its deeper color, and also its bitter flavor, to this circumstance.

ALEWIVES, *n. pl.* An American fish, a little larger than the Scotch herring. This fish is cured very nicely on the South Shore, Massachusetts. It requires but little broiling over lively coals. When cooked on both sides, take the skins carefully off, and serve it without butter. This fish is nicest when freshly cured.

ALIMENT, *n.* Nourishment; food.

We take it, the great object of cookery is to prepare food

that will at once combine the most nourishment with the least unnecessary action of the stomach. Crude, hard substances thrown into the stomach tax it to its utmost limit. If "there is a tide in the affairs of men, which, taken at the flood, leads on to fortune," so also there is a crisis in the cooking operations, which should be anxiously watched for by all honest cooks and philanthropic, well-disposed persons.

That the dissolving and reducing powers of the stomach have a limit, the frequent visits of disease too surely demonstrate. We would not advocate a fantastic regimen with regard to diet; man's instinct, and his superior digestive organs, suggest and authorize an extensive variety in the matter of food; we only wish to recommend care with regard to the chemical properties of materials, and their careful preparation for the human stomach. The elegance and graceful lightness of French dishes is not often attained by us: but let us abjure France's brandy sauces, and crude sugar sauces, her cloying cordials, her raw oils; and, on the other hand, let us refuse to eat meat half cooked, and to swallow soups that require the habits of a Hottentot properly to digest. Our climate and our politics are both highly exciting, and therefore we should endeavor to propitiate so powerful an agent as this same human stomach. The effects of diet, both negative and positive, on the physical and mental constitution of man, are known to be very considerable. "Know thyself," is the sublime injunction often thrown in people's faces. No one can obey in full; but he can begin by not despising the day of small things; he may modify his temper, correct his health, when he simply thought to modify his food and correct some habits bearing upon the use of stimulants and narcotics. Let the wise, however, be a law unto themselves in these things. Franklin may be great on a bowl of gruel; my neighbor on the hill has gorgeous fancies on a bowl of coffee; my friend who lives just below

builds up an harmonious physical and mental constitution on venison, game, rich mutton, beef, and perfumed wines.

ALKALI. This word comes from an herb, called by the Egyptians *kali;* it is the same as *glasswort*, of which there are several varieties. The Egyptians burned this herb to ashes, boiled the ashes in water, and when the water was completely evaporated the residuum was a white salt, called by them salkali or alkali.

The ashes from forests, on the clearing up of land to bring it under cultivation, yield a vast alkaline residuum, and after these ashes have been subjected to boiling and evaporation of its solution in iron pans or pots, they afford one principal alkali of commerce, known under the name of *potash.* The common domestic ley, used for the manufacture of soft-soap, is obtained by filtering water through wood-ashes. Hard-soap is made with another alkali of commerce, known under the name of soda; it is obtained through the combustion of marine plants. Soda abounds in sea-plants, and that to a greater extent than potash does in vegetables of inland districts. The barilla of Spain, which is an impure carbonate of soda, imported from Spain and the Levant, is extracted from the *Salsola sativa* and *vermiculata*, and some of these plants yield nearly twenty per cent of ashes, which contain about two per cent of soda. (Johnson's Farmer's Encyclopædia. External Nature as adapted to the Physical Condition of Man, by John Kidd, M. D., F. R. S.)

Alkaline Salts are bodies formed by the union of alkalies with acids. Combined with fatty substances, as already mentioned, alkalies form soaps.

ALKANET (Lat. *anchusa*). A species of bugloss. Its root is of a deep-red color, as the plant reaches maturity in autumn; its root is also astringent. Alkanet chips, which

are sold by the druggists, are used for coloring: previous to infusing them in any liquid you may wish to color, they should be picked over, and then tied in a muslin bag. It is a cheap, easily got at, and innoxious coloring. Confectionary is often colored through the agency of this plant.

ALLSPICE, *n.* The dried, immature berry of the *Myrtus pimenta;* called also Jamaica pepper. (*Worcester.*)

This spice is not much used in any approved category of culinary operations. Mixed with stronger spices, and chiefly to qualify their asperity, it is put into mangroves for pickling. In common cakes, it sometimes gets leave to come in.

ALLSPICE-TREE, or Sweet-scented Strawberry, or Calycanthus.

This delightful shrub is a native of North America. The scent of its fragrant brown flowers is thought to resemble the fruit of the strawberry. It thrives in almost any deep, fresh soil, but loves a shady situation. The different species are all varieties of the *Calycanthus floridus*, or the American Allspice-tree; it is also sometimes called Carolina Allspice. All the varieties are propagated by layers, removing the layers the third year.

ALMOND (*Amygdalus, Rosaceæ*). These ornamental species of almond are very popular, on account of their flowers. The dwarf (*A. nana*) is a low but beautiful shrub, that bears in spring exquisite double pink flowers. *A. communis-pleno* is the large flowering shrub. Its flowers are nearly white. It bears also a good hard-shell, but small almond.

There are several varieties of each of these species. The dwarf almond is propagated by suckers, while other species

and varieties are grafted on the common plum-tree. The common dwarf almond has several botanical *soubriquets;* it is known as *Amygdalus pumila*, Lin., *Prunus japonica*, *Prunus Sinensis*, and *Cerasus*; but under any of these names, or any other name, it smells as sweet. Mrs. Loudon remarks, in her excellent book, "Gardening for Ladies," that where the almond is cultivated for its flowers, a background of evergreens should support them, "as otherwise, from the flowers being produced before the leaves, half their beauty will be lost from the cold and naked appearance of the tree."

ALMOND (*Amygdalus communis*). The almond-tree is a native of the North of Africa and the mountains of Asia. Its cultivation was introduced into England as early as 1548. Its resemblance to the peach-tree in both wood and leaf is so like, that, joined to experiments which have been made in cultivating the almond from seed, many botanists think the peach an accidental variety, produced by culture on the almond.

The almond requires similar soil and treatment to that bestowed on the peach. It is often budded on thrifty plum stocks. Though some ornamental varieties grow in New England, our Northern regions refuse us the fruit. The lamented and accomplished Downing* says, that "the common almond, the hard-shell sweet almond, and the bitter almond, are hardy in the latitude of New York, and will bear tolerable crops without care. The soft-shell sweet almond, or ladies' almond, will not thrive well in the open garden as a standard north of Philadelphia; but they succeed well trained to a wall or on espalier rails, in a warm situation, the branches being slightly protected in winter. There is no apparent reason why the culture of the almond should

* Fruits and Fruit-trees of America.

not be pursued to a profitable extent in the warm and favorable climate of some of the Southern States. Especially in the valley of the Ohio and Tennessee it would be likely to succeed admirably."

1. The long Hard-shell Almond is hardy, has a large nut. Grows readily in the Middle and Western States. Its flowers are large, highly ornamental, of a pale rose-color. Ripens last of September and first of October.

2. Common Almond, sweet, is also hardy; nuts hard, of agreeable flavor, but inferior to the preceding. Flowers precede the leaves.

3. The Soft-shell Sweet Almond, or Ladies' Thin-shell, is the choicest variety for the dessert, and for confectionery. It ripens early, and it is served up in a green or fresh state at Parisian dinners about the middle of July. The blossoms and leaves come out together; the flower has a deeper red than the varieties already mentioned. The shell is soft, easily yielding to the pressure of the fingers; the kernel is sweet, and very agreeable. Mr. Downing has remarked, "that on the plum stock, in a favorable aspect, this almond succeeds, with a little care, in the Middle States."

4. Sultana Sweet Almond. A tender-shelled almond, of pleasant quality. The fruit is smaller and the kernel narrower than the soft-shelled almond, but of equally rich flavor, and even thought to be the nicer by some.

5. Pistachio Sweet Almond. This variety is not much known in America. The fruit resembles the pistachio in size and shape; the shell is not quite as tender as the soft-shell almond. Of this variety Mr. Downing has observed, that it "is scarcely known yet in this country, but is worth further trial at the South."

6. Peach Almond. This variety is considered as rather indifferent. It is a cross between the peach and the almond. Its fruit is somewhat sweet, but not unfrequently a little bit-

ter, resembling, in short, the inferior kind of peaches. This variety requires, to ripen perfectly, a Southern latitude.

7. The Bitter Almond. This species is distinguished for its bitter kernel. It has two varieties, one with a hard and one with a brittle shell. The leaves have a darker green than most of the sweet-fruited discover, and are also longer; the blossoms are also large, and pale in color.

The kernel of the sweet almond has its familiar uses, in the lady's *boudoir*, in the hands of the confectioner, and the simple house cook. The bitter almond plays a part almost as varied and busy, for besides lending aid to the cook and confectioner, it also is an auxiliary of medicine, and, gliding into the chemist's crucible, yields him one of the most virulent of all poisons, prussic acid. Both the sweet and bitter almond afford an oil. Let us now proceed to see in how many good things this valuable nut is found as a very principal help and ingredient; observing beforehand, that the soft-shell sweet almond, or ladies' almond, is the favorite nut for the table, and for fancy dishes for dessert. It is also better economy to buy these when to be used for the last-mentioned purposes, a pound of this variety yielding about half a pound when shelled; of course the thicker-shelled yield less.

Almond Blancmange.

Take two ounces of isinglass and one quart of new milk, blanch one half-pound of almonds, and pound them very fine in a mortar, with a little rose-water, and stir them in carefully. Strain it, and sweeten it to your taste. Let it be milk-warm when you put it into your mould.

Almond Candy.

Take two quarts of West India molasses, and stir into it one pound of brown sugar; put this molasses thus prepared

into a porcelain-lined kettle, and set it over a moderate fire, and let it boil about three hours. Have ready three pounds of blanched almonds, cut into large pieces, and just before taking it up, stir in a piece of fresh butter about the size of a hen's egg; then put in the almonds. You may omit the butter if you choose, hanging your faith on the oil of the almonds. If you wish to have part of your candy light-colored, separate some, and cut some of your almonds very fine, and while it is yet warm pull the candy, (having previously floured or buttered your hands,) at arm's length, till it is light yellow, or straw-color. Twist this, and cut it in sticks. Butter flat pans for that which is not to be worked, and pour the candy into them.

In making candy, be always careful not to have too hot a fire, as molasses is easily burned.

Almond Cake.

Take an ounce of shelled bitter almonds and an ounce of shelled sweet almonds; blanch them, and lay them on a dry linen cloth in the sun. Take a pound of dry, hard loaf-sugar, of the best quality, and powder it and sift it. Take ten newly laid eggs, and break them on the sugar. Wipe the almonds perfectly dry; pound them in a stone or marble mortar to a smooth paste, adding a little rose-water while pounding them to prevent their oiling. Have ready seven ounces of dried and sifted flour.

Beat the eggs and sugar till they are very light. Stir in the almond very hard, and just before you put the cake into the oven, stir in the flour quite lightly. Put this mixture into thin-bottomed pans, that the heat may be on the bottom of the pan rather than the top. The oven should be quick. Butter your pans with good butter.

This cake is frequently iced. To do this, take the whites of three eggs, and as much white powdered sugar as will

make a thick paste, about twenty-five spoonfuls if the eggs are large. Flavor with a few drops of fresh lemon-juice. Put it on the cake while it is warm (but not hot) from the oven.

Almond Cheesecakes.

There are a variety of ways of making these cakes. Some persons beat eggs and stir them into boiling milk till it makes a curd, and add sugar and cream and spice and almonds and raisins to this curd; and others make this curd with rennet, adding such ingredients as are mentioned above. Another good way is the following: —

Take a quarter of a pound of blanched sweet almonds; let them cool; pound them in rose-water in a marble or stone mortar. Take the same quantity of sugar, and the yolks of four eggs. Beat this mixture till it is very light. Bake it in rich puff-paste.

Almond Cream.

Weigh a pound of soft-shelled almonds in the shell; blanch them, and pound them with a little rose-water, which indeed should always, when practicable, be used, as before mentioned, as it prevents the almonds from oiling. Take a quart of cream, and stir in half a pound of powdered loaf-sugar. Freeze it.

Almond Custard.

Take one pint of cream; blanch and beat a quarter of a pound of almonds with two spoonfuls of rose-water; add the yolks of four eggs; sweeten to your taste. You can boil this in a porcelain kettle, stirring it one way over the fire, or you can boil it in a tin custard-pail, or bake it in small china custard-cups.

This custard is also nice frozen; in which case it is put into the freezer without being subjected to any heat.

Almond Flummery.

Take two large calves' feet, and boil them in two quarts of water till the meat falls in rags from the bones; then strain it off, and put to the clear jelly half a pint of thick cream; then take two ounces of sweet almonds and an ounce of bitter almonds, blanched and well beaten together, and stir them in. Put the ingredients thus prepared into a porcelain preserving-kettle, and let it come to a boil; then strain it off, and when it is warm as milk, put it into cups or glasses.

Almond Macaroons.

Take one pound of the best white powdered sugar, sift it; beat in a stone or marble mortar one pound of blanched sweet almonds, adding a few drops of rose-water as you beat them; mix them into a paste with the whites of six eggs, well beaten. Make them into forms, by taking a little of the paste about the size of a cherry into the palm of your hand, with a little flour. Butter some sheets of white paper, drop the macaroons on it, leaving a little interval between each for them to spread. Bake them quickly, strewing a little white powdered sugar over them from a fine sieve just before putting them into the oven. Try to have them a delicate color.

Almond Paste.

This is a grateful and cooling paste, highly recommended for the hands.

Take six pounds of fresh almonds, blanch, and beat them in a stone or marble mortar with a sufficient quantity of rose-water, added gradually, to make a thick paste; add to this a pound of clear, fresh-strained honey, and mix the whole thoroughly and smoothly. Put it in small china pots, or wide-mouthed glass bottles, with a little rose-water on the top of each bottle. Tie them closely.

Almond Pudding.

Take one pound of sifted sugar, one half-pound of butter, and work them together. Beat the yolks of twelve eggs; have ready one half-pound of blanched almonds, beaten smoothly, with a few drops of rose-water, the strained juice of three large fresh lemons, and the grate of one. Stir the egg and the almonds into the butter gradually and alternately, putting the lemon juice and peel in last. Bake in a rich paste, in small pie-plates.

Almond Soup.

This soup is made either from calves' feet, a knuckle or breast of veal, a scrag of mutton, or cold fowl, and never from any of the darker, heavier meats, as its principal beauty is its delicate pearl-color. For the same reason none of the darker spices are to be used, and the soup should be boiled in a porcelain-lined kettle, and cooled, in its progressive steps, in china or porcelain dishes.

If you make your soup of calves' feet, take four feet, nicely scraped, but not skinned, and put them into your kettle with a few blades of mace. Pour over them three quarts of cold water. Cover the kettle, and put it over a moderate fire, where it may boil slowly. When it comes to a quick boil, throw in a little table-salt, and remove the kettle to a position where it may simmer. Soups require in their early stages a sufficient degree of heat to bring to the surface the scum; and as salt tends to throw this together, it is well to put the salt in as soon as the soup boils.

Skim the soup, and let it be subjected to a steady simmer till the meat has fallen in rags from the bone. Then strain it into an earthen pan; when it is cold, remove the fat from the top, and return the stock to the kettle; as soon as it is melted, have ready three quarters of a pound of blanched almonds, that have been pounded smoothly in a stone mor-

tar, with a few drops of rose-water added to them, from time to time, during the process of pounding. Some are of opinion, that a few bitter almonds added to the sweet improve the flavor of the soup. Boil them a quarter of an hour in the soup.

Boil a pint of cream a few minutes before taking up the soup, and stir it in just before sending it to the table.

If you make your soup of mutton and veal, omit the cream and mace, and cut up the peel of a lemon in thin slices, and just before sending the soup to the table add a little of the strained juice of the lemon.

Soups of an elaborate kind should be made early in the morning, or partially prepared the day before. Veal, fish, and vegetable soups are, however, best when freshly made.

Besides these numerous happy appearances, the almond is with us again in the popular Antique Oil, used now so commonly for the hair. This oil is made of equal proportions of the oil of sweet almonds and the best olive-oil, colored with alkanet chips, tied in a muslin bag, scenting the mixed oils with such perfumes as may be most grateful or desirable. The oils, after being mixed, should stand for a few days in some warm place to facilitate the coloring, and, by a gentle infusion, have the scented essence thoroughly incorporated. Do not, however, put in the essence till a short time before bottling, as the heat would dissipate the perfume. Put it into glass bottles, and cork it well, having previously passed it through a strainer.

Almonds, blanched and cut in large pieces, are often placed on the top of sponge and other light cakes just before they are sent to the oven. Almond icing is also put over this class of cakes. As to almond tarts, colored with the juice of spinach and less innocent matters, the less that is said of them, the better for all parties concerned.

ALOES. The medicinal juice is extracted from the common aloes-tree, which has no relation to the costly tree of the East, whose spicy virtues are alluded to by both David and Solomon, nor yet to the American Aloe, or Agave.

The American Aloe is of the Amaryllis tribe, but the true Aloe of the Day-lily tribe.

The true Aloe is highly purgative, but the American Aloe abounds in mild starchy properties; the American Aloe sends up a gigantic flower-stem, from which issue branches of cup-shaped flowers, but each plant flowers but once, while the true Aloe flowers every year.

The drug is extracted from the pulp of the leaves of several species. The Aloe Socotrina, so called from the island of Socotra, is now hardly to be had; that which is sold for Socotrine being a mixture of Barbadoes and Cape aloes.

Aloes is a very strong cathartic. As a veterinary medicine it is often very efficacious; but though a valuable horse medicine, it is rarely given to other domestic animals. Even to the horse it must be administered with care. For purging a horse, the usual dose is from four to eight or ten drachms; but, except in certain diseases, more than eight should never be given even to the strongest horse, and six or seven drachms are a sufficient dose for a family horse.

It may be given in the solid or liquid state; but the best method of administering it is to powder it, and mix it up with flour and water, or honey, or some simple, to a stiff paste, and placing it at the root of the roof of the horse's tongue, he swallows it without difficulty. (See Johnson's Farmer's Encyclopædia.)

ALTHEA FRUTEX, OR ROSE OF SHARON, is a hardy shrub, growing very common in Virginia, and easily

cultivated in most common garden soils. Some of the varieties are very beautiful, and any are desirable for a flower-garden. It can be propagated from seed, or by cuttings and layers. Seeds are thought to produce the best plants.

ALUM (Lat. *Alumen*). A mineral or earthy salt of an acid taste. It is a sulphate of alumina, combined usually with a sulphate of potash. (*Worcester.*)

This mineral salt contains, according to chemical results, in different proportions, sulphuric acid, alumina, potash, and water. Its cleansing qualities often tend to dissipate inflammatory sores and ulcers which have already reached the crisis. It is rendered milder by burning a bit on a shovel or iron plate, and reducing it to a smooth powder.

Alum Lotion, or water impregnated with alum, is sometimes, among other minerals and earths, used by florists in watering the Hydrangea, to change the pink flowers to blue. It does not always succeed. (Mrs. Loudon's Gardening for Ladies.)

Alum Whey is made by mixing half a pound of powdered alum with one pint of milk. Strain, and sweeten it with white sugar, and add a little nutmeg. It is efficacious sometimes in diarrhœa, and in cases of colic.

Alum is much used in dyeing processes. A good domestic dye, for homely purposes, is made by boiling sugar-loaf paper with vinegar in an iron vessel, and fixing the color with alum. This liquid is carefully strained before any cloth is boiled in it, and the cloth to be dyed should be wet.

Alum is sometimes put into rinsing-water in washing calicoes where green and yellow colors predominate.

A very little alum is frequently put into vinegar for pickles, to harden them and improve their color.

ALYSSUM (*Cruciferæ*). Lat. for *Madwort.* Herbaceous plants, both annual and perennial, chiefly natives of Europe. Some varieties are grown on rock-work. The Sweet Alyssum should be grown where bees are kept.

AMMONIA, OR VOLATILE ALKALI. This gaseous substance consists of hydrogen and azote only. It acquired its name from its being prepared in the East, from camels' excrement, nigh a temple consecrated to Jupiter Ammon.

This alkali is very extensively diffused, and to its presence in liquid manures and organic substances is mainly owing their efficacy as manures.

In places overcharged with animal life, this gas exists to an extent injurious to human life.

AMMONIAC, *n.* A gum-resin; the name of two drugs, *gum ammoniac*, a concrete juice brought from the East, and *sal ammoniac*, a compound of muriatic acid and ammonia, popularly called hartshorn. (*Worcester.*)

Sal ammoniac is obtained by destructive distillation of bones; a process by which, on the application of heat, the substance of the bone is dissolved into its simple elements, from which new compounds are formed. Some of these escape in the form of vapor or gas, while the fixed principles remain in the retort.

The article used in smelling-bottles, and called salt of hartshorn, and volatile salts, is a carbonate of ammonia; it is obtained from the horn of the hart, or from any kind of bone. Spirit of hartshorn, called by the apothecaries liquid ammonia, is frequently used to cleanse jewelry, applying it with a soft, clean rag, and clearing and polishing it with other dry rags and bits of silk. Stains are often removed by it from silks, gloves, carpets, and worsted materials. As it is very volatile, but a little should be exposed at one time to the air.

A friend has vouched for the following recipe for the cure of warts. Dissolve in an ounce vial, filled with soft water, as much sal ammoniac as it will hold, and wash the warts several times daily. This process persisted in will not fail to remove these excrescences.

Water absorbs this gas instantaneously, and in great proportions, taking up more than five hundred times its own bulk; and when water is so charged, we have the pungent liquid already mentioned as called by the druggists *liquid ammonia*, and known also as *spirit of sal ammoniac*, or *spirit of hartshorn*.

In painting roses, or wherever bright carmine tints are required, a few drops of liquid ammonia mixed with the paint heighten the color. Indeed, the salts of ammonia, and especially the muriate and carbonate, are substances of large commercial traffic, and are much used in the arts and in medicine.

Spirit of hartshorn, very much diluted, is sometimes used for dressing the hair.

AMYLACEOUS, *a.* Applied to substances which contain starchy properties. Arrowroot, tapioca, salop, and sago, all have large proportions of fecula or starch. Light dishes for dessert, and nutritious ones for invalids, are made from these articles. See directions under their respective heads.

ANCHOVY. A little sea-fish, from which sauces are made to accompany larger fish. Anchovies are known to be fresh by the smell and fresh color of the fish. The red color of anchovy liquor is given to it by artificial means, often by cochineal, and consequently is not desirable.

Anchovy Toasts.

Take slices of bread, and fry them in fresh butter; have ready some fresh anchovies, that have been boned, pounded

in a mortar, and the liquor pressed from them; mix a little butter with them, and spread them on the bread, putting some whole bits of anchovy on top, or garnish with slices of hard-boiled egg. Serve very hot.

Anchovy Catchup.

Take twenty-four anchovies, chop them, bone and all; put to them one handful of scraped horseradish, four blades of mace, ten shallots or small onions, one quart of white wine, one pint of water, one fresh lemon cut in slices, one half-gill of anchovy liquor, one gill of claret, twelve cloves, twelve peppercorns; boil them together till reduced to a quart. Strain and bottle it for use. Two teaspoonfuls will flavor one pound of melted butter.

ANISE (Lat. *Pimpinella anisum*). A kitchen herb; a species of apium or parsley. It has large aromatic seeds, which are used for flavoring soups. These seeds are distilled with brandy, sweetened with sugar, and filtered for anisette liqueurs.

One pound of anise-seed yields by distillation two drachms of oil. Dropped on a lump of loaf-sugar, from two to ten drops, it is found to be stimulating, to expel wind and induce perspiration. This oil is said to be poisonous to pigeons, if rubbed on their bills or heads.

ANNOTTO (written also *Annotta*, *Arnotto*, and *Aronetta*). Annotto is sometimes called *Rocou*. It is a soft substance prepared from the seeds of the *Bixa orellana*, a shrub of Tropical America, and used for dyeing. Combined with the paste is a resin, so that some alkali, such as soft-soap or weak ley, is used to facilitate the solution of the dye.

For dyeing a few yards of any material, a little of the paste can be tied in a muslin bag; and, having previously

soaked the material in cold water, wring it out dry, and pull it apart, and boil it in the ley with the coloring bag.

The nicer kinds of annotto are of a bright color, yield to the pressure, and dissolve in water more readily than that which is usually to be had of the druggists. The English color their cheeses with the purer sorts of annotto. An ounce is sufficient to color twenty cheeses of ten or twelve pounds each. Cheeses are not so universally colored in America.

ANTS. Mrs. Loudon remarks (Gardening for Ladies), that "it has been found that the liquor discharged by ants is very acid and acrid; the idea presented itself that alkalies would be disagreeable to them; and experience proves this so far to be the case, that a circle of chalk or lime laid round any plant will effectually prevent the ants from touching it." Similar measures and great cleanliness will keep them out of closets.

ANTHRACITE. A hard mineral coal. Lehigh, Schuylkill, and Rhode Island coal come under this head. It is heavier, less black, and not so easily ignited as bituminous coal; it emits no smoke, and burns slowly with a white flame, but once excited to flame, and burned in large masses, it throws out great heat, and is not so quickly exhausted as bituminous coal. It is now used quite extensively in America, both for domestic and other purposes.

In making fires for the grate, the best way is to lay a thin foundation with hard coal, selecting the smaller pieces from the scuttle; put bright kitchen coals on this basis, seeing that the coals are unmixed with ashes; over these coals put some pieces of charcoal, filling up the crevices with small bits of anthracite; when this has ignited, put on the last heap of anthracite, the smaller lumps first, and set the blower firmly

on. When forked flames strike up through the mass to the surface, you may safely take the blower off.

The ashes from anthracite coal will make neither soap nor ley.

ANTISEPTICS, *n.* Substances which prevent or check putrefaction (*Worcester*). Some of the most powerful of these preservative agents are alcohol, oils, acids, camphor, charcoal, chlorine, tannin, resins, sugar, bitumen, and salts of different kinds.

The mode by which they resist and retard decay has never been fully explained. In some cases, as in leather, they seem to combine with the material to be preserved, and probably in other cases they absorb the decomposing gases and agents.

Lumps of charcoal put about birds and meat will tend to keep them sweet, but will hardly restore what is already tainted.

For the preservation of vegetable and animal substances, sugar, alcohol, salt, acetic acid or vinegar, and pyroligneous acids are used; but antiseptics for the preservation of scientific specimens and labors are resinous and bituminous varnishes, alum, alcohol, oil of turpentine, and corrosive sublimate.

APPLE (*Pyrus Malus*). It is a curious fact, that all our apples have originated from a species of crab which is native to Europe, and not from our native crabs. The seeds of the species brought by the European colonists to America have, through the influences of culture, soil, and climate, succeeded in giving us the finest apple in the world. Mr. Downing has remarked, that the apple-tree is "most perfectly naturalized in America, and in the northern and middle portions of the United States succeeds as well, or, as we believe, better

than in any part of the world. The most celebrated apples of Germany and the North of Europe are not superior to many of the varieties originated here; and the American or Newtown Pippin is now pretty generally admitted to be the finest apple in the world. No better proof of the perfect adaptation of our soil and climate to this tree can be desired, than the seemingly spontaneous production of such varieties as this, the Baldwin, the Spitzenburg, or the Snaar, — all fruits of delicious flavor and great beauty of appearance."

Though the apple will live in almost any soil and situation, it thrives best in strong loamy soils, that are rather heavy than light and sandy. Clayey loams, if well drained, are favorable fruit soils. There are some exceptions to this soil; the Yellow Belle-Fleur is thought finer to be grown on a sandy soil; and, to quote the same excellent authority above mentioned, "the Newtown Pippin will only arrive at perfection in a strong loam." But there are exceptions to all rules; and the distinguished author adds, "that calcareous soils, of whatever texture, are better than soils of the same quality where no limestone is present."

Sandy soils, whose subsoil is also of too sandy a character, are improved by top-dressing and manures. Top-dressings of clay and heavy bog-earth, river-mud, and similar matters, are recommended by the best cultivators as more lasting manures, and calculated to work up a firmer, better soil, than the common stable-manures.

Every fruit garden, where the soil is not naturally good, requires to be ploughed, or trenched two spades in depth; and it is better to do this one season beforehand, that is, before setting out seedlings.

The apple-tree has many enemies in the insect world, that the cultivator must constantly watch, and endeavor to overreach.

The Apple-tree Borer is among the most mischievous of these insects. In June it assumes the form of a medium-sized beetle, flying about in the night, and in the day resting and feeding on the leaves of the trees; in this month, and in July and August, she begins to lay eggs upon the bark of the tree, and almost always near the ground. Her progeny are whitish fleshy grubs, which eat through the bark, and remain there the first winter; the following season it ascends some twelve or fifteen inches into the tree, throwing out dust, by which it is usually detected. The third year it leaves the tree, assuming the beetle form (*Saperda bivittati*). After it has once penetrated the tree, it must be destroyed by piercing it with some bit of wire or sharp instrument, or by applying the knife or chisel. We have seen them extracted in a perfect state by a lady with a simple hair-pin.

The best of all modes for getting rid of these and other insects are those which tend to keep the tree and soil, and even the atmosphere, in an ungrateful, inhospitable attitude towards them.

In June, small bonfires destroy the beetle which is the future borer, by thousands. They should be placed in different parts of the orchard; a few shavings or a little tow, a pitch-pine knot, or a few handfuls of any dry, combustible matter, will answer the purpose. In June also, the bark of the tree should be scraped, and be bathed with various washes. A wash made of soap-suds and whale-oil soap, in the proportion of two pounds of the soap to fifteen gallons of water, is known to be beneficial. It is frequently applied with a syringe.

Water in which refuse tobacco-leaves, wormwood, and burdock have been steeped, is also, if made into a strong decoction, efficacious.

A solution of potash, of about a pound to two gallons of water, is used with advantage.

When lime is used, it should always be in solution with something else, as it binds the bark of the tree, and prevents the dews, air, and rains exerting their influence.

A little salt placed in a circle round the tree, if repeated only in small quantities, is fatal to many insects, and, with the precaution necessary for using so powerful an agent, not injurious to the tree. Hen-manure, ashes, sulphur, soot, snuff, and any strong-smelling substances, may be placed round the tree. Fish oil and offal is disagreeable to many insects.

Bottles, left uncorked, and half filled with some sweet preparation, and tied upon the branches of trees, are an excellent trap for winged insects which pierce the blossom and the fruit.

Birds destroy great numbers of insects, and guns should never be fired off in orchards and gardens.

Belts or bandages of canvas are tied round apple and other trees, and covered with tar, mixed with train oil, to keep it moist. These belts, if kept in a fresh state, will keep the female of the cankerworm from ascending the tree to lay her eggs. Many persons apply the bandage in the fall in October, and keep it on till late in the spring.

Old India-rubber, subjected to great heat in an iron pot, forms an excellent substance for smearing the bandages; it is highly adhesive, and, effectually resisting the atmosphere, it seldom requires to be renewed.

Another practice which is much recommended by cultivators is to dig round the tree, and bury rock-weed that has grown by the sea-shore, throwing the earth over the weed, and treading it down lightly, or passing the roller over it.

Always have a space immediately round the trees kept perfectly free from weeds, so that insects can be more readily discovered.

Gathering and Keeping the Apple.

Apples should be gathered in dry weather, and those which are to be stored for winter use plucked by the hand. Delay gathering the fruit till there is serious apprehension of frost. The most approved way then is to place the fruit immediately into tight, dry flour-barrels, packing it closely, and heading it up quite full, to prevent bursting in rolling. They are then placed in some shady exposure, some shed open to the air, or under the trees, protected by boards placed under and over the barrels, or at the north side of the building, the barrels being similarly protected by boards; in such places they remain a few weeks, or till extreme cold weather, when they are carefully transferred to a dry, cool cellar, where air can be occasionally let in from the outer atmosphere on days not too cold.

The barrels should be placed on their side, and kept as dark as possible. The colder apples can be preserved throughout the winter without reaching the freezing point, the better for winter fruit. Packed in dry, close barrels, apples will bear a frost nearly twelve degrees below freezing temperature.

Before entering upon the uses of the apple, we would advise every housekeeper to provide herself with a tin apple-corer, a cheap and useful article for extracting the cores of apples, and also with a tin apple-roaster, that can be put before the fire.

Apple Batter.

Take twelve juicy apples, slice them thin, and stir them into a batter prepared thus. Take six eggs, beat them quite light; stir them, with flour enough to make a batter a little thicker than pound cake, into a pint of rich milk; stir them in alternately with the fruit, and just before you put it into the oven, stir in a little melted butter. Bake in a deep dish.

Serve it with sugar, butter, and nutmeg, or with sugar and cream.

Apple Butter.

This is often made and sold by the barrel. It is made by slicing and paring sweet apples, and boiling them in new cider till they have a smooth, thick consistency.

Apples Dried.

When small quantities are prepared, it is usual to pare, quarter, and core them by hand, and dry them in the sun. Where they are intended for large market sales, they are pared and quartered by machinery, and dried slowly in ovens. Buy those which look clean.

In cooking dried apples they should be allowed to simmer slowly some time before the sugar is added. Flavor dried apple-sauce with a few drops of fresh lemon-juice and the grate of the peel. Always pick over dried apples, and, if necessary, wash them through one or two basins of water; but soaked too long, they are insipid, leathery, and unhealthy, if the same water is not used to stew them in.

Apple Dumpling.

Take a quart of sifted flour and half a pound of sweet lard or butter, and a salt-spoon of salt. Put to the flour enough water to make a tender paste; roll it out, and work in the butter or lard as you would paste. Cut the paste into circular bits, about the size of a small plate, and put a cupful of sliced apples into each piece. Throw them into boiling water, and boil them not quite half an hour. Serve them with butter, sugar, and nutmeg, or a made sweet sauce.

Apple Jelly.

Both the Scarlet and Yellow Siberian Crabs make an agreeable jelly; the Yellow Belle-Fleur is also a desirable

fruit for this purpose. An over-ripe or mawkishly-sweet apple is not suitable for jellies. Those which are tender, juicy, and have a sub-acid taste, are best for the making of jelly.

Wipe your apples, and cut from them the eye and stem; then slice them, and put them into a stone jar. Put the jar into a pot of water, and let them boil till the apple is tender. Take them out carefully, and put them into a deep flannel or linen bag. To every pint of juice put a pound of powdered white sugar; let it dissolve; put it into a porcelain-lined kettle over the fire, and let it come to a boil. Pour it while warm into small glasses, and tie them down with brandied papers.

Apple Marmalade.

Take four pounds of sugar, put them into a preserving-kettle, and throw on to it not quite a quart of water; stir it till dissolved; put it over the fire; as it boils up, throw in a cupful of cold water. Have ready four pounds of sliced apple. Choose for marmalade a nice dessert apple, of rather acid flavor and fine-grained flesh. Let it boil quite slowly till the apple breaks up, and can be stirred into a smooth, even appearance; afterward let it boil quickly, to increase the evaporation of the liquid, and, just before taking it up, add a few drops of lemon-juice. Put it into china or earthen jars, and paste it or tie it down closely.

Apple marmalade is often put into moulds. If not to be used immediately, it must be brandied, papered, and tied up very closely, and kept in a cool, dry place. Wet the mould in hot water before attempting to turn it out.

Apples Meringued.

Select handsome Pippins or Greenings of the same size, and, with the aid of the apple-corer, pare and core them

whole. Put them into the oven with a little water, in a deep earthen dish. Let them plump, but not break. Take them out into a flat dish, and, when cold, fill the centre of each apple with jelly. Make an icing with the whites of eggs thickened with powdered loaf-sugar, and flavored with lemon-juice, and put it on to each apple in as handsome a form as possible, wetting the knife you use with cold water as you place it on. Sift a little white sugar over them, and place them in a moderate oven, with the door open; allow them to remain there but a few seconds, as the jelly might run out, and spoil the appearance of the whole.

Apple Pancakes or Fritters.

These are frequently made by adding a little more flour than is given to a common pancake batter, and stirring in slices of uncooked apple. The following is a little richer. Take some of the finest-flavored dessert apples, pare them, and cut them into thin slices, put them into a small dish, add to them a little brandy, some white wine, a small grated nutmeg, and cover them with powdered loaf-sugar; let them stand some hours. Prepare a batter, by taking half a pound of sifted flour, a salt-spoon of salt, the yolks of three eggs beaten very lightly, a little melted butter, and as much water as will make a thin batter. Drain the apples, and put them into the batter, — one large spoonful of batter and a slice of apple for each fritter. Fry them quickly in hot fat, drain them on a sieve, and put them into a warm dish, sifting white sugar on to them, and glazing them as you lay them in.

Apple Pie.

Select some of the finest Pippins or Belle-Fleur apples, pare and core and halve them; sift a little powdered sugar

over them. Have ready a rich sirup, made of four pounds of loaf-sugar broken up, two pints of pure water and a wine-glass of rose-water, and the white of an egg. Let the sugar dissolve before you put the kettle over the fire, and reserve a cup of the water to be put in at the first boil up, when it is to be carefully skimmed; at the second boiling, put in the rose-water, and take off the kettle. Put it away to get cold into a deep earthen dish.

Cover the bottom of a preserving-kettle with apples, and pour enough sirup on to cover them, put a stick of cinnamon in, and boil them till tender and transparent, but do not allow them to break. Take them out carefully, on a flat dish, with their sirup, and proceed in the same way till you have preserved your whole fruit. Save a little of the sirup.

Make a rich pie-paste, and cover the bottom of the plate intended for your pie with a thin piece of the paste; put your apple in, piling it up, so as to give a plumpness to the pie. Cover with a rich paste, ornamenting the sides with a paste-cutter. When the pies are baked, take a knife, and carefully lift up the top paste; if they have cooked dry, take a small spoon, and put in some of the sirup you saved. Bake the pie a very light color.

Apple Sauce.

Take twelve large, rich apples of an acid quality, pare and core them, and put them into a porcelain-lined kettle or saucepan with four or five spoonfuls of water. Boil them till they are perfectly tender; take them off, and stir in a small piece of fresh butter, one pound of white powdered sugar, and a little pounded orange-peel. Apple prepared in this way, with the same quantity of sugar, a quarter of a pound of melted butter, the juice of three lemons and the grate of one, and the yolk of eight eggs, mixed well together, and a

little sugar sifted from a fine sieve after it is all beaten lightly and well mixed, and baked in a puff-paste, makes a very nice pudding.

Apple sauce to be eaten with meat should have much less sugar.

Apple or Carolina Snowballs.

Take the core out of as many large Pippins as you may wish to make snowballs, and fill the centres of the apples with orange and lemon peel cut very fine; put two spoonfuls of rice in a cloth which will cover the apple, putting the rice all around the apple. Tie the cloth, and boil them an hour. Make a sweet, rich sauce of butter, wine, and loaf-sugar to eat with them.

Apple Tea or Water.

Slice large Pippins into thin bits, and cut a little of the peel of a fresh lemon on to them, put them into a pitcher, and pour over them some boiling water. Let it stand, covered closely, near the fire, for several hours. Pour it into glasses, and sweeten it with loaf-sugar. It is a grateful and cooling drink for invalids.

Apples Baked.

Apples baked in a tin roaster, with a little West India molasses or sugar-house sirup poured over them, and eaten with cream or rich milk, are very nice. A rich-flavored, sweet apple is to be preferred for this dish.

APPLES OF LOVE (*Poma amoris, Tomato*). This vegetable has been for the last twenty years very generally cultivated in America. It was introduced from France. There are several varieties. For the culture of Tomato, see *Art of Gardening;* and for cooking, see receipts under the respective heads.

APRICOT (*Armeniaca vulgaris*). This early fruit is often nipped by frost, and if it escapes this blight its blossoms are pierced by insects. In Virginia I have seen farmers keep the snow round the trunk of the tree as long as possible, to retard premature blossoming. Nets are sometimes thrown over the tree, as a partial protection from the attacks of flies and wasps. Flambeaus of tar and tow stuck into the earth and ignited at night will destroy many of these insects.

The apricot thrives best budded on the plum (July is the most desirable month for budding it), being more healthy than when growing from its own root; and it can also adapt itself to a stronger soil when so budded, which also leads to healthy habits.

Apricots in Brandy

Gather apricots from the tree (if possible) not too ripe. Rub them with a coarse towel. Prepare a sirup with loaf-sugar of not more than half the weight of the apricots, and water enough to dissolve it. After the sirup is prepared, put the fruit in carefully, and let it simmer a few moments only; take the fruit out, and lay it on flat dishes to cool. Boil and skim the sirup till it is quite thick and rich. Put the apricots, when cold, into white earthen preserve-jars, and pour over them equal quantities of the sirup and French brandy. Tie the jars with bladder-skin, or paste the paper on.

Apricot Ice-cream.

Peel and stone the fruit, and pound it, with white sugar, to a smooth mass. Beat it up lightly, or pass it through a sieve. Add sweetened whipt-cream and a little melted isinglass. Beat the whole with a wooden spoon, over ice, till the whole is intimately blended. Put it into the mould, and freeze it.

Apricot Jam.

Peel and stone the apricots; if they are dry, put them into an earthen pan, and throw a very little boiling water over them. Beat to a pulp, and take an equal quantity of pounded or powdered loaf-sugar and fruit, and boil them hard in the preserving kettle about twenty minutes. You may blanch some of the kernels of the apricot, and put them on the top of the jars before you lay the brandy-paper over. Tie closely. This jam makes nice tarts. In making it, be careful that it does not stick to the bottom of the kettle. It must be stirred often.

Apricot Preserve.

Choose apricots, for preserving, that are not overripe. This fruit too ripe is insipid, mealy, and unfit to make a handsome preserve.

Stone and pare the apricots, keeping them as whole as possible; lay them, hollow side up, on a large flat dish, sift white powdered sugar over them, and keep them in a cool place for the night. Put a pound of sugar to a pound of fruit, and simmer them slowly till the fruit looks transparent. Do not put too many at once into the preserving pan. Put them into glass jars, and cover closely. You may blanch some of the kernels, and flavor with them. Apricots are sometimes preserved in apple jelly.

Where apricots are plenty, they are dried in the same way as apples; and a delicious liqueur is made from the juice of the fruit.

AROMATIC POT AND SWEET HERBS. The seeds for the most of the common herbs should be sown early in spring, in drills about an inch deep, and two feet apart, each kind by itself. As they grow, thin them out.

Some of these herbs are annuals, dying after the first year; others are biennial, dying after perfecting their seed in the second year; others are perennial, bearing from the same root for many years, and may be propagated by separating the root, or by suckers and cuttings.

Some hardy perennials, such as Balm (*Melissa officinalis*), some of the Mint family (also perennials), such as Spearmint (*Mentha viridis*), Peppermint (*Mentha piperita*), Pennyroyal Mint (*M. pulegium*), do not require a very rich soil, but should have a well-drained or dry sub-soil. The beds should be renewed after the fourth year. The mint is a creeping herb that cannot be hoed; and after the stalks are cut, dig the sides of the beds, throw the earth up, and spread it gently and smoothly on the bed, with a top-dressing of very rotten dung.

I shall give a catalogue of such herbs as are commonly cultivated and used for seasoning meats and soups, and of those which are called in requisition when colds and slight disorders disturb the household.

Aromatic or Culinary Herbs.

Anise,	*Pimpinella anisum.*
Basil, Sweet,	*Ocymum basilicum.*
Burnet, Garden,	*Poterium Sanguisorba.*
Caraway,	*Carum carui.*
Marigold, Pot,	*Calendula officinalis.*
Marjoram, Sweet,	*Origanum Marjorana.*
Mint, Pennyroyal,	*Mentha pulegium.*
Sage, Common,	*Salvia officinalis.*
Savory, Summer,	*Satureja hortensis.*
Savory, Winter,	*Satureja montana.*
Spearmint,	*Mentha viridis.*
Thyme, Common,	*Thymus vulgaris.*
Thyme, Lemon,	*Thymus Serpyllum.*

Medicinal Herbs.

Boneset, or Thoroughwort,	*Eupatorium perfoliatum.*
Balm,	*Melissa officinalis.*
Catmint,	*Nepeta Cataria.*
Chamomile,	*Anthemis nobilis.*
Elecampane,	*Inula Helenium.*
Horehound,	*Marrubium vulgare.*
Horsemint,	*Monarda punctata.*
Hyssop,	*Hyssopus officinalis.*
Lavender,	*Lavendula spica.*
Lovage,	*Ligusticum Levisticum.*
Motherwort,	*Leonurus cardiaca.*
Poppy, Opium,	*Papaver somniferum.*
Rosemary,	*Rosmarinus officinalis.*
Rue, Garden,	*Ruta graveolens.*
Tansy,	*Tanacetum vulgare.*
Wormwood,	*Artemisia absinthium.*

In the autumn, hardy perennials like the various Mints, and such plants as Chamomile, Lovage, Horehound, and Pot Marjoram, should be trimmed close to the ground. The beds of such as are shrubby plants, and not creepers, should be carefully dug, and the earth loosened around the roots of the plants.

Tender plants must be potted and housed for the winter.

Of Sweet Basil, the two species generally cultivated are annuals. The Sweet-scented or larger Basil (*O. basilicum*), and the Dwarf Bush Basil (*O. minimum*). They like a light, rich soil, exposed to the sun, after they have established themselves; but the younger plants require to be sheltered.

Of Marjoram (*Origanum*) there are eight species, and numerous varieties. The common Pot Marjoram has a creeping root, and is of a high aromatic flavor.

Sweet or Summer Marjoram, a favorite of the kitchen, is propagated always by the seed, while the perennials can be raised by the roots, or from slips and offsets, which should be well watered till they have taken root. The soil should be well pulverized, and, after cuttings have been taken, carefully stirred, and a top-dressing of light, well-prepared compost thrown on the top of the bed.

Summer Savory (*Satureja hortensis*), also in happy reputation, is an annual.

Sage (*Salvia officinalis*). There are several varieties of this herb. The common Garden Sage requires a light soil, but if too much enriched it soon exhausts itself. It is cultivated by seed, and also by rooted offsets, and sometimes by cuttings from the healthier shoots, which have thrown themselves out at the sides of the plant. Put the shoots deep into the ground, leaving only the top leaves above the surface.

Thyme (*vulgaris*). This herb is propagated by seed and rooted slips. The lemon-scented variety is a favorite. The seed is never covered more than about half an inch below the ground. It should be sown plentifully, and when they have been up a few weeks, thinned out. It is called perennial, but it hardly ever survives the rigor of a New England winter. Too much water causes the roots to decay. The soil should not be over rich, but very nicely pulverized. The roots, when young, should be sheltered from the noonday sun; afterwards they may be transplanted to a more exposed situation. Thyme is a running herb, and consequently cannot be hoed. When the stalks are cut, the weeds should be carefully removed, and a little light soil and very rotten manure thrown on the surface of the bed.

Medicinal herbs are not in such full reign as formerly. The author well recollects hearing the Rev. Dr. Bentley say that he drank sage tea for every bodily ailment, even for a wounded foot.

Mineral medicines have superseded, in a great degree, the use of herbs.

Wormwood is still used, mixed with rum, for allaying feverish excitement incident to bruises and sprains.

The Oil of Rosemary is at present an ingredient in certain lotions.

Poppy is yet in merited esteem. An infusion of white poppy leaves for bathing weak eyes is often beneficial, and poppy leaves laid on the top of poultices for healing purposes, have a soothing effect.

Hyssop tea is used for infantine disorders, and joins with Catmint in making a nourishing drink for infants.

Motherwort tea continues to be considered a harmless tonic, and Thoroughwort a wholesome purgative, while Chamomile plays an undisputed part in restoring tone to a weak stomach.

Pennroyal is generally dried on the stalk, and hung up in paper bags. It makes a soothing and agreeable tea. It is much used as a defence against wood-ticks and fleas, and is sometimes put round a horse's harness to keep the flies off.

Tansy, though not able to come to amicable terms with every stomach, is drunk by many as a tonic, and to exterminate worms. Meat rubbed with tansy leaves is said to keep off the visits of the flesh-fly. Many books give us receipts for making tansy pudding, but I have never seen the person who has eaten one, — that is, to my knowledge.

Herbs are dried for winter use in an oven, quick and thoroughly, taking care not to burn them; take the leaves from the stalks, pound and sift, and bottle them closely, or put them into close-fitting tin boxes.

Vinegars are frequently flavored with herbs; they make a nice seasoning for some sauces, hashes, and ragouts.

Gather the leaves fresh on a dry, sunny day, and pick

them carefully. Fill a stone jar with such herbs as you prefer for flavoring, and pour some wine or cider vinegar over them, and let them steep for nine or ten days; then strain, and bottle the liquid.

Wine extracts the virtues of herbs and roots in the same manner as vinegar, and is prepared in the same manner. Herb wines are often used for beef, and dishes made from calf's head.

ARROWROOT. This farinaceous substance is taken from the roots of certain plants. The Jamaica and Bermuda are considered as nice as any. Gruels and jellies made from arrowroot are relished by invalids and children, and are desirable occasionally for all, as a change from heartier diet. Arrowroot does not require to be boiled, but it is much healthier to be cooked. In using it either for gruel or blancmange or puddings, you must first wet the arrowroot, as you would starch, before adding to it the full quantity of liquid.

Arrowroot Blancmange.

Mix in a little cold water two teaspoonfuls of arrowroot, and pour over it a pint of boiling milk, sweetened and flavored to your taste or present wants. Put the mixture over the fire, and stir it constantly for two or three minutes. You can turn it into a mould, and garnish with colored jellies.

Arrowroot Gruel.

Mix a little arrowroot, not quite a table-spoonful, and pour over it boiling water; season it with a salt-spoon of salt (not heaped), a little white sugar, and nutmeg.

ARSENIC, in a metallic state, is of a bluish-white color. As an acid, it is known as a sudden and virulent poison.

Arsenic is frequently used in the manufacture of glass and the nicer kinds of porcelain; for this reason, it is not well to set aside acids in cups and drinking-glasses, with an intention of using the liquid, as the alkali in the glass may be sufficient, when brought in conjunction with acids, to hold the arsenic in solution. Arsenic is used in the manufacture of shot, and when shot is used to cleanse bottles, care should be taken to throw them all out in the final rinsing. Many paints have arsenic for their basis.

When arsenic has been swallowed, give large quantities of sugar and water, and at the same time administer a generous dose of ipecacuanha, which may be repeated; if the latter cannot be had immediately, two or three spoonfuls of made mustard, diluted in warm water, may induce vomiting. Oil is never to be taken till the poison is entirely ejected. After the patient has happily passed the crisis, some simple matters, such as barley or rice water, milk, or flax-seed tea, can be taken to quiet the stomach.

ARTICHOKE (*Cynara*). There are two varieties, the oval green *Cynara Scolymus*, or French, and *Cynara hortensis*, or Globe Artichoke. The latter is considered best for common culture, the heads being larger, and producing more eatable substance, and being without the strong, mawkish, perfumed taste peculiar to the French, or oval green. Both varieties may be cultivated from the seed or sucker taken from large plants early in spring. It is perennial, but, like everything else, it is the better for frequent renewals; a bed will, however, under favorable circumstances of soil and climate, continue to produce heads five or six years. They require a loose, light, and moist soil. The seed should be sown about an inch deep, and at such distances as to allow the earth, when the plants are up, to be lightened around them. If a plant throws out a great many suck-

ers, some should be removed, in order that the remainder may be more vigorous for transplanting. Transplant them, in cloudy weather, to a rich, moist soil, and water them frequently while rooting. For winter protection, the roots must be covered with a light mould, close to their leaves, and a little well-rotted manure thrown over them. If the compost is too rich, it will cause them to decay.

When ripe, the scales expand. They should be cut before the flower makes its appearance. Cut the stem always close to the ground.

The Artichoke is not regarded as a very nourishing vegetable; but it is much esteemed by those who have acquired a relish for it. When gathered, they should be thrown into cold water, and be well washed, and then be put into fresh cold water, and soaked for about an hour, before they are cooked. Put them into boiling water, with a little salt, and if fully grown boil them an hour and a half, or till they are tender. Drain them, and serve them with melted butter, pepper, and salt. In Europe, artichokes, when dried, are baked with mushrooms in meat pies.

ARTICHOKE, JERUSALEM (*Helianthus tuberosus*). This is a native of America, as indeed are all the plants of the Sunflower genus. Professor Low (Elements of Practical Agriculture) says: "Although believed to be a native of the warmer parts of America, it is one of the hardiest of our cultivated plants, very productive, easily propagated, and growing on the poorest soils. As compared with the tubers of the potato, they are watery, and may be believed to be inferior in nutritive properties. But the quantity is frequently very large; about five hundred bushels per acre, it is said, having been produced without manure. The tubers do not seem to have great fattening properties, but they are eagerly eaten by animals."

They are cultivated in a similar manner to potatoes. If the stems are pruned, the tubers will be improved. They require to be placed three or four feet apart, in rows or drills, to be occasionally hoed, and to be kept free of weeds. They are also cooked with the same variety that the potato enjoys.

They are commonly boiled, scraped, carefully drained, mashed, and a little cream and butter beaten into them, seasoned with salt and pepper.

They are sometimes parboiled, and then placed in a pan under roasting meat, and either sent to the table on the dish with the meat, or served separately. They may be boiled plain, and served with melted butter poured over them.

ART OF GARDENING. Mr. Roscoe, the elegant author of the Lives of Lorenzo de Medicis and of Leo the Tenth, speaking from personal experience, — for he, like his father before him, had been an active laborer in agricultural pursuits, — has said: "If I were asked whom I consider to be the happiest of the human race, I should answer, those who cultivate the earth with their own hands."

As most houses in villages have vegetable gardens, we shall give some brief hints upon the making and preserving such gardens; these suggestions have been gathered from experience and the best authorities.

The largest produce with the smallest expense, is the favorite axiom of the gardener, as of the larger agriculturist. To attain this end, there should be a careful husbandry of every kind of fertilizer; chip-dust, bones, decayed or decaying leaves, soot, dish and stale meat-pickle water, ashes, liquid manures, should all be brought into requisition by the careful housewife.

The soil of the garden should be light, well pulverized, and kept in good spirits by liquid manures. Weeds should be carefully extirpated. One cannot always choose the

site. Mr. Forsyth says: "A garden, if possible, should be on a gentle declivity towards the south, a little inclining to the east, to receive the benefit of the morning sun." Low bottom lands are subjected to blights, mildews, and frosts, and, on the other hand, a too lofty situation is exposed to merciless winds, that break the branches of trees and shrubbery, and scatter prematurely the blossoms of the orchard.

Having secured as good a situation as circumstances permit, and made art supply original defects of situation, the next step is to ascertain the nature of the soil. If it be very wet, drains must be dug to carry off the superfluous water. These drains must be made to draw into the main drain, which can be laid under the principal walk of the garden. In a small garden of an acre, one well-constructed drain will generally be sufficient, if the soil be not deplorably wet.

A cold, stubborn, clayey soil requires to be lightened by horse-manure, wood and coal ashes, sand, and chip-dust, in order to become porous, and accessible to the outer atmosphere.

Dry and sandy soils require manures which will increase their weight, and promote an adhesiveness favorable to the retention of moisture. Cow-manure, river-mud, clay, fish-offal, can be given to such soils with advantage.

Ground which retains moisture, and is neither very sandy nor very clayey, which in drying does not bake in obstinate sour cakes, has a good constitution for the produce of most vegetables.

If your land is new, it will require two or three deep ploughings before it can be worked.

The implements for a garden may easily be multiplied to a useless excess. A skilful gardener brings his labor about with comparatively few tools.

Two spades, of different forms, a hand hoe, a garden rake, an asparagus fork, one or two drilling-machines for sowing

seed, a wheelbarrow, and, if convenient, a roller for paths and to smooth beds just after the putting in of seed, will be all that is requisite for a common kitchen garden; other wants, as they arise, being readily supplied by an ingenious person. Sieves for covering squashes from the heat of the sun while young can be made of home manufacture; a roller can be supplied by boards laid on the ground, but neither roller nor boards should be used while the ground is wet; and coal-ashes for walks make hard, clean paths, and tend to keep off insects; even the drilling may be done by hoes or dibbles, after a line is stretched, and the distances marked for the different rows.

I propose to make a few remarks upon the following common garden vegetables; viz. Common Bean (*Faba vulgaris*), Common Beet (*Beta vulgaris*), Cabbage (*Brassica oleracea*), Carrot (*Daucus Carota*), Celery (*Apium graveolens*), Cress (*Lapidium sativum*), Cucumber (*Cucumis sativa*), Chives (*Allium Schœnoprasum*), Horseradish (*Cochlearia Armoracia*), Indian Corn (*Zea Mays*), Lettuce (*Lactuca sativa crispa*), Melon (*Cucumis Melo*), Water-Melon (*Cucurbita Citrullus*), Mustard (*Sinapis*), Onion (*Allium Cepa*), Parsley (*Apium Petroselinum*), Parsnip (*Pastinaca sativa*), Peas (*Pisum sativum*), Pepper (*Capsicum*), Potato (*Solanum tuberosum*), Pumpkin (*Cucurbita Pepo*), Radish (*Raphanus sativa*), Rhubarb (*Rheum*), Salsify (*Tragopogon porrifolius*), Common Spinach (*Spinacia oleracea*), Squash (*Cucurbita Melopepo*), Tomato (*Solanum Lycopersicum*), Turnip (*Brassica Rapa*).

Bean (*Faba vulgaris*).

There are great varieties of the Common Bean. The English Garden Bean requires care in this country, as our summers are apt to wilt and destroy the blossom. They should be planted as early in the spring as possible, in drills

not quite two inches deep and three or four inches apart, with an interval between the drills of three or four feet. When a few inches high they should be hoed, and when in full bloom the tops can be broken off, that the vigor of the plant may be directed to filling out the pods. Some of the varieties of the English Dwarf are known as Early Mazagan, Broad Windsor, Sword Long Pod, Green Nonpareil.

Kidney Dwarf Beans. — These beans are from India, South America, and warm climates, and require care and a rich soil. They may be planted either in hills or drills. The drills should be two or three feet apart, and the beans some inches asunder. They should be carefully hoed as they grow, and the earth be drawn about their stems from time to time.

Among this family of beans are the delicious Cranberries; also the Refugee, or One Thousand for One, which is usually planted in hills.

Some of the early varieties are Early Dun-colored Quaker, Early Valentine, Early Mohawk, Early China Dwarf, Early Yellow Six-weeks, Early Rob Roy, Early Black Dwarf. The Early Mohawk is considered the hardiest of these varieties.

The Yellow, White, and Red Dwarf Cranberry, and the Warrington or Marrow Bean, are all delicious table vegetables.

Beans, Pole. — These species are also planted in hills or drills; the same distances, as already mentioned above, being preserved. Tall poles, ten feet high, are inserted in each hill, or along the drills, and the beans planted around them. In planting the Lima Bean, it is best to put not less than seven or eight in each hill, as these species of beans are affected by damp weather, and often rot in the ground. They can afterwards be thinned, so as to leave but three or four

healthy plants in each hill. The Lima Bean also requires richer soil than other running beans, and the hills should be four feet from each other, on either side. Put the seeds about half an inch under ground.

Among the varieties of Pole Beans are the Red and White Pole Cranberry, the Large White Lima from South America, and the Saba or Small Lima, London Horticultural Speckled, White Dutch Runners, Scarlet Runners, and Asparagus or Yard-Long.

Beet (*Beta vulgaris*).

Beets are biennials. The Mangel-Wurzel is cultivated for cattle; it takes its name from the German; it is also called Root of Scarcity. It is considered excellent for cows, highly nutritious, inducing milk, without imparting a taint to it, as turnips do. The highly blood-colored are much prized for the table.

Beets are planted in drills, a foot apart, and not quite two inches below the surface, and thinned out as soon as they are strong, hoed, and kept clear of weeds. It is desirable to have the earth in good order by previous tillage, and not to be obliged to apply manure at the time of putting the beet-seed in the ground.

One of the earliest varieties is the Early Blood Turnip-rooted.

The French Sugar Beet, white, red, and yellow, is used extensively in Europe for the manufacture of sugar. It is an excellent variety for the table. The common Green, Red, and White Beet are all desirable for the table. The Early Spring are sometimes tough and stringy, from being subjected to the changes of uncertain weather. Under favorable growth, the young plants that are pulled for thinning are served with their tops on, and are sweet and tender.

For winter use they should be planted in July; if too

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long in the ground, they become coarse and corky for table use.

The soil should be finely pulverized for beets, and, after the beets are up, well stirred by frequent hoeings.

Cabbage (*Brassica oleracea*).

The Cabbage, says Professor Low, commonly so called, is *Brassica oleracea*. This species assumes a vast variety of form and character. The Wild Cabbage, from which the greater number of the cultivated kinds are derived, is a little plant growing upon our sea-coasts. Yet to this plant we certainly owe the greater part of the numerous varieties cultivated in our gardens and fields. We cannot, indeed, be assured of the origin of all the cultivated kinds; besides the variations produced by climate and art, all the species of *Brassica* form hybrids with one another.

With us a variety of ways are made use of to bring forward the Cabbage, according to the climate and soil. The early kinds are raised in hot-beds, and transplanted into beds of rich soil, covering them at night to protect them from frosts. Plants of the early sorts may generally be raised from seed, in most of the New England States, some time in April, unless the season is quite backward.

Cabbages are attacked by various worms and insects, which sometimes eat up whole rows. It is well on transplanting them to keep a narrow watch on these depredators, and to place a little circle of salt round each of the plants; also lime, ashes, snuff, and pungent-smelling substances.

Among the early varieties are the Early Dutch, Sugar-loaf, Early York, Early Heart-shaped, &c.

The Yorkshire, Drumhead, and American or Bergen Cabbage have large leaves, which form close, dense heads. These require to be placed in drills several feet apart, with an interval between the plants in the rows of two or three feet.

The seed of the Red Cabbage can be sown towards the last of April or first of May in favorable seasons. This is a desirable cabbage for pickling, and for winter salads.

The seeds of the Savoy, a popular table variety, are generally sown in New England in May, in a rich, well-prepared soil. These plants, on being transplanted, will not require to be placed so far apart as the larger kinds.

The richer and fresher the soil, the better for the Cabbage, which also requires the ground to be deeply stirred while growing, in the same manner as for turnips.

Cauliflower and Broccoli are both species of Cabbage. Broccoli is not cultivated so universally with us as the Cauliflower; it has, like the latter, large heads of seeds, only the Broccoli has its seeds of different colors, purple, green, brown, and white. The white varieties are often mistaken for Cauliflower.

Cauliflower requires to be protected from the extremes of heat and cold. As the heads tend to maturity, the larger leaves are broken over them to preserve their purity of color and compactness of growth. Over two feet every way should be given as space for the Cauliflower, and from time to time the beds should be forked, to keep the earth between the plants porous and open to the atmosphere.

Carrot (*Daucus Carota*).

The Carrot grows wild in Great Britain. It is an excellent vegetable for cows. The Carrot thrives best in rich land, which has been subjected to previous tillage. It is sown in drills not deeper than an inch, and the drills about a foot apart. The Early Orange, the Long Orange, and Altingham are the varieties usually selected for the kitchen garden.

Celery (*Apium graveolens*).

Celery, as is well known, is Smallage cultivated. The

seed is sown in cold beds; when it is well up, the plants are put into a bed of rich earth, and allowed to remain for a few weeks, when they are transplanted into trenches. These trenches should be made in the richest part of the garden, and dug a little more than a foot deep, leaving the earth thus taken out on either side of the trenches. Some rotten manure is mixed in at the bottom of the trench, putting some of the loamy earth from the sides with it. In the centre of the trench place the plants, leaving five or six inches between each plant. They should be abundantly watered and partially shaded for the first two or three weeks. They may be hoed some time before they are earthed. The earthing should be done in dry weather, otherwise it is apt to make the celery grow rusty. Celery intended for winter is planted later in the summer.

Cress (*Lapidium sativum*).

The Curled, or Peppergrass, is liked by many with Lettuce. It is sown in little drills, quite thickly, and in ground free from weeds. It is of easy cultivation.

Cucumber (*Cucumis sativa*).

The seed of the cucumber is put into hills of rich earth, well-rotted manure being placed in each hill. Cucumbers are sometimes raised in the squash bed. The hills should be three or four feet apart. They require water in dry weather, and to have the insects kept off from them. Charcoal-dust, wood-ashes, and washes with such liquids as are destructive to insects and not injurious to the young plants, water in which burdock-leaves, soot, &c. have been steeped, can be advantageously applied. Cucumbers should be always plucked before they turn yellow, as otherwise they soon exhaust the vine.

Chives (*Allium Schœnoprasum*).

A species of Onion, which is grown from the offshoots it sends out from its roots. They are planted in rows about a foot apart, and with an interval between the bulbs of three or four inches.

Horseradish (*Cochlearia Armoracia*).

Horseradish may be planted, either in a bed or in drills, from cuttings from the root or offshoots. Any tolerably strong, moist soil will grow horseradish. If it is occasionally hoed, it will be improved.

Indian Corn (*Zea Mays*).

Indian Corn is usually grown in hills several feet apart. It requires good soil and warm weather. When about seventeen inches high, it should be hoed deeply. A little ashes scattered on each hill will tend to keep the insects off.

The best sorts for a kitchen garden are Early Dutton, Tuscarora, Canadian, and Sweet or Sugar.

Lettuce (*Lactuca sativa crispa*).

Lettuce is often sown in hot-beds. It requires the richest soil, frequent hoeings, and an equal moisture. The varieties are infinite. Royal Cape, Curled India, Dutch or Cabbage, Large Green Curled, are all considered superior.

Melon (*Cucumis Melo*).

Early in May prepare, in rich, light soil, beds about six feet apart every way, and at the corners of the bed dig deeply, and put in well-rotted manure, and throw in fine loamy earth, and mix it well with the manure. Into these corners put seven or eight melon-seeds. If they all come up, thin them, and bring the earth up round the plants. The

ground should be kept scrupulously clear of weeds. Pluck off the first runner buds, to keep the vigor of the plants for the fruit. Plant Melons by themselves, if you wish to keep the virtues of an individual kind, as the Melon mixes pollen with all the Cucumber family.

The Striped Cucumber Bug (*Galereuca vittata*) and the Cucumber Flea Beetle, a little black, skipping insect, are the enemies of the Melon. Use diluted alkalies, soot, and lime. Mr. Downing has recommended the use of *guano*, sprinkling the soil just beneath the plants as soon as they come up, the pungent smell ridding the plant of its destroyers, and giving it a fine start in the early part of the season. (Fruits and Fruit-trees of America.)

The culture of the Melon is easy, and of great productiveness, excepting in the most Northern States; and the author has eaten delicious melons grown at Bangor, Maine.

Bits of slate and blackened shingles placed under each melon are said to improve the size and flavor of the fruit. (Mr. Downing.)

The Green-fleshed Melon, in which class is found the Citron and the Nutmeg, contains some of the choicest and most popular varieties. The oval, Yellow-fleshed, are inferior in comparison to the round, Green-fleshed, above mentioned. Mr. Downing has mentioned the Persian Melon, of a thin skin and delicious flavor and honey-like flesh, as a variety repaying the additional care of a hot-bed and irrigation, or constant watering, and careful mixture for the making of soil. (Fruits and Fruit-trees of America.)

Melon-seed, if good, will sink in water; if worthless, it will float on the surface.

Water-Melon (*Cucurbita Citrullus*).

The Water-Melon is cultivated in the same manner as the Melon, excepting the hills are placed eight feet apart, instead of six.

Mustard (*Sinapis*), White and Black.

Sinapis alba, White Mustard, and *Sinapis nigra*, Black Mustard, are both easily cultivated. They may be sown early in spring. *Sinapis nigra* is that from which mustard is usually manufactured. White Mustard is used for stuffing mangoes, and both varieties for salads.

Onion (*Allium Cepa*).

Onions will not grow on wet and stubborn soils; they require a rich bed, with strong but old manure well mixed in it to the depth of a spade. The bed should have a sunny exposure, and be prepared early in the spring. The seed is sown in drills about an inch deep, with an interval between the drills of twelve inches. As they come up, thin them out, if too thick, till several inches is left between the bulbs. In the early stages of their growth, they may be hoed; but after they have assumed the bulb, they must be weeded by hand.

When onions are fully ripened, the tops begin to turn yellow and decay.

The seeds of onions are also sometimes sowed late in the spring, and pulled up in the fall, and dried, and kept over winter, and set out in the following spring, and cultivated in the same manner as onions from the seed.

Among the approved varieties for the table are the White Portugal, and Silver-skin, or Yellow Onion.

Parsley (*Apium Petroselinum*).

There are several varieties, all easily cultivated. The Common Parsley is the well-known pot-herb, and the curled varieties form the familiar garnish that gives coolness and brightness to many dishes. Sow the seed in drills about an inch deep, and place the drills about a foot apart. Hoe frequently to keep free from weeds.

The Large-rooted Parsley (*Apium latifolium*) is cultivated in the same manner with parsnips and carrots. If sown thick, they should be thinned out as they come up.

Parsley can be kept through a large part of the winter, if taken up and put in boxes, and kept in a good cellar, and watered occasionally and exposed to the light.

Parsley is biennial, but it is well to sow it annually. Rabbits are fed upon parsley.

Parsnip (*Pastinaca sativa*).

Parsnips thrive best in a soil enriched by previous tillage. No manure should be applied at the time of sowing seed. As early as spring culture can be undertaken, the beds should be dug deep, the seed sown in drills about an inch deep, and an interval left between the drills of about fourteen inches. Sow the seeds thickly, and when two or three inches high, if they seem strong, thin them, so as to leave six or seven inches between each plant. They require gentle hoeing all through the summer, to keep off the weeds. In autumn some can be taken up for winter use, and others left in the ground till spring, as the frost sweetens and improves the parsnip.

Peas (*Pisum sativum*).

There are many varieties of the Garden Pea. The early varieties can be put into the soil as soon as the ground can be worked; other sorts can be planted, at intervals of about a fortnight, till the end of May.

All the varieties may be planted either in single or double rows; and all, even the dwarf varieties, should be supported when two or three inches high, by fan-shaped sticks for the tendrils to run upon. The drills have an interval between them, which is determined by the kind of Pea planted; the space is generally from four to six feet apart.

The finest Marrowfat Peas grow very high, and require long sticks. To save sticks, and to increase the yield, some gardeners make two drills about three inches deep, and nine inches apart, and drop the seed into both drills rather thick. As the plants reach two or three inches in height, they are hoed, and the earth brought up round the stems, and when six or seven inches high they should be hoed again, and a line of sticks placed between the rows, of a height suitable to the variety of Pea. A few smaller sticks may be put on the outside of the rows, as steps to lead to the main centre sticks or poles. It is poor economy to use rotten and brittle sticks. Rows are in such instances blown down by the wind, or by the first gathering of the vegetable. Some people dip the ends of their sticks in tar or resinous preparation to keep them some seasons.

Peas will grow either on light or heavy soils, but thrive best on light ones. If the ground is too rich, they run to vine, but yield poorly.

Pepper (*Capsicum*).

Of this family there are several varieties. They belong to the East and West Indies, but are easily grown in all the States with a little care. They are often brought forward in the hot-bed, and on reaching the height of two or three inches are transplanted into good rich beds, with a sunny exposure, allowing sufficient space between each for a hand-hoe to be worked, as they require to be kept free from weeds.

Some of the pods of the different varieties are red, and others yellow, on reaching maturity. They are gathered green for pickling.

The *Capsicum grossum*, or Bell-shaped, is in warm climates perennial. It has a thick skin, and is pulpy and delicate in texture.

When the pods are ripe they are cut, and hung in the sun in a dry atmosphere. The seed is preserved in the pod if it is effectually dried. When powdered it is used for pepper-tea, for the relief of violent colds and sore throats.

The variety Sweet Spanish is used as a salad.

Potato (*Solanum tuberosum*).

The Potato is a native of America. Of the genus *Solanum*, it belongs to the natural order *Solanaceæ*, or the Nightshade tribe. Some of this family, it is well known, are poisonous, as the Deadly Nightshade; others have stimulating and narcotic properties, and others afford us food. The potato is said to eject some poisonous properties, on being subjected to heat in the process of cooking, and, for this reason, the practice of changing the water they are boiled in is a commendable one.

Potatoes are mostly planted in drills, either whole or cut into pieces, each piece having an eye. They are frequently cut a week before they are planted, and spread on a dry barn-floor to dry. They are planted five or six inches deep, and seven or eight inches from each other, in drills about thirty inches apart. They are hoed as soon as they are up, and from time to time the earth is thrown up around the plants.

Potatoes require a great deal of manure. Common stable manure, bone-dust, and alkalies are all favorable, but lime cannot be used with advantage.

Pumpkin (*Cucurbita Pepo*).

Pumpkin beds are prepared in a similar manner to melon and cucumber beds, but the soil need not be so highly prepared.

Radish (*Raphanus sativa*).

Radishes do not love a wet, stubborn soil, and should

have beds carefully prepared early in the spring, and be sown in a light loam with a sunny exposure. If the weather is dry, they require watering, to swell the roots. They should grow rapidly, or they are tough and stringy or corky. Stir in strong manure into the beds, and keep wood-ashes, tobacco-dust, and soot on the surface of the bed, to drive off insects. The seed is put in drills about an inch deep and a foot apart.

Rhubarb (*Rheum*).

This genus of plants contains several varieties. *Rhaponticum*, or Common Rhubarb, is the kind commonly cultivated for its stalks. *Rheum undulatum* is also cultivated in kitchen gardens.

Palmatum, or *Officinal Rhubarb*, is the variety whose root is so valuable for medicine. It is cultivated largely in Turkey, and is a native of China and the East Indies. This variety has never been much cultivated in America.

The Common Rhubarb requires a light, rich soil, and to be dug to the depth of two spades. It is propagated by the seed or by offshoots. In the spring the plants are brought forward by having stable manure put around them, and being covered by barrels or large tubs. It is much improved by cultivation.

Salsify (*Tragopogon porrifolius*).

This plant, known also as the Vegetable Oyster, is much cultivated in Virginia, and cooked there in a variety of ways.

The seed should be sown early in spring, in good garden earth, in drills an inch deep and about a foot apart. The seeds ripen unequally, and therefore it is safer to sow the seed rather generously. They may be thinned when two or three inches high, so that a small hoe can be passed between them, to keep the earth loose and light.

Spinach (*Spinacia oleracea*).

This is a valuable vegetable for the kitchen garden, being hardy in its habits and of a wholesome nature. It will only flourish in rich soil, and if the ground is poor, strong manure must be liberally thrown into the bed. It can be cultivated in drills; as soon as it is a few inches high, it must be carefully hoed, and the practice continued all through its growth.

Spinach is regarded mostly as a spring vegetable, but it is sometimes put into beds, in autumn, that have become empty by the taking up of vegetables.

There are several varieties of spinach, the Savoy Spinach, Broad-leaved Spinach, Holland, &c. A variety called New Zealand Spinach, or *Tetragona expansa*, lasts into autumn. It grows, if the season is favorable, luxuriantly; and is planted in hills some feet apart, with but few seeds to a hill.

Squash (*Cucurbita Melopepo*).

Beds are prepared for the Squash in the same manner as for melons and cucumbers. Those which are great runners have an interval between them of six or nine feet, while the bush varieties are planted three or four feet apart.

Early Summer Squashes are gathered while the outside is sensitive to the pressure of the finger-nail.

Winter Squashes are kept out as long as possible, in order to be hardier for winter keeping. On cold nights they are covered with matting or old carpet, to protect them from the frost. They should be thoroughly dried by the sun before they are put up for winter. Care should be taken not to bruise them; and they should be kept on a dry floor or shelf, in a room at an equal temperature, but never at the freezing point.

Early Bush, Early Crook-neck, &c. are summer varieties. Canada Crook-neck, Acorn Squash, are both nice varieties

for winter. There are other varieties of great merit. Plant different varieties by themselves; sown near cucumbers, melons, or other squashes, the mixture of the pollen deteriorates the seed for the following season.

Tomato (*Solanum Lycopersicum*).

There are two species of the Tomato, the Red Tomato and the Yellow. In each of these are found sub-varieties, with differences of size and shape.

The large Red Squash-shaped is the most commonly cultivated for the table and for catchups. The small Red Cherry-shaped is used for pickling.

The yellow varieties differ principally in shape. The small Cherry Yellow Tomato is a very pretty variety, and makes a good common preserve.

Nothing is of easier culture in a warm climate than the Tomato. In Virginia I have known a single plant to bear over a bushel of rich, mellow fruit.

In Massachusetts and in Maine greater care is requisite to perfect the fruit. Plants are sometimes brought forward in a hot-bed, and often in a cold bed or open box in the house; the boxes being deep and well filled with rich earth, placed in a sunny exposure, and kept of an equal moisture. The seed must be put in sparsely, and not deeper than half an inch. In transplanting, deep holes are dug, and strong stable-manure placed in these holes with finely pulverized earth, and the plants put in carefully, taking up as much earth with them as possible. Each hill should be three or four feet apart. They must be protected from the hot sun in their early stages, by shingles forced into the ground so as to shade them. They should be watered morning and night till they set, and occasionally all through the season, if the weather be dry.

As they grow, they need to be trimmed, in order that the

fruit may be exposed to the sun. They can be trained either horizontally or to a pole. Care should be taken that the fruit does not rot on the ground. Tomatoes are great exhausters of the soil, and their beds should be changed from year to year.

Turnip (*Brassica Rapa*).

Turnips should be sown early in the spring for summer use, and for winter vegetables a bed should be sown later. If the first crop does not come to maturity early in summer, they are stringy and worm-eaten.

Turnips are best grown upon land which has been previously manured. A light soil is desirable. Insects must be fought off constantly, by lime, ashes, soot, and pungent powders put on the surface of the bed. Sometimes whole beds of turnips are cut off by insects.

For garden culture, turnip-seed is sown in drills about a foot apart, and hoed between the rows as the plants grow.

The Swedish, or Ruta-Baga, which grows to an enormous size, is very good for cows mixed with other food.

The table varieties are various. The small turnips are sweeter than the larger kinds, which are more suitable for extensive agricultural purposes.

Early White Dutch, Swan's Egg, Long Yellow French, and many other varieties of white and purple rooted turnip, are excellent for the table.

Garden-seed should seldom be put lower down than an inch, unless where seed is necessarily sown late, when it may be covered deeper, to protect the seed from being scorched by the sun.

Though it has never been proved that plants throw out "matters of an excrementitious nature injurious to the plant from which they have been separated," yet it is known that

some plants exhaust the fertility of land in a larger degree than others, — that certain kinds of food are taken by some plants and rejected by others; and for such reasons a rotation of crops has always been an invariable maxim with the farmer, and the small gardener finds it equally to his benefit to change the situation of his beds.

Spinach, always requiring a rich soil, leaves the ground in a good state for such vegetables as salsify, carrots, beets, radishes, potatoes, &c.

Celery beds are excellent for cauliflowers, cabbages, and all the *Brassica* tribe.

Potatoes leave the ground in a good state for artichokes, for an asparagus bed, for lettuce and onion, situation and subsoil being favorable.

Such plants as have luxuriant spreading heads are to be followed by those which have but narrow leaves and sparse outward growth.

Vegetables which require frequent deep hoeing prepare the ground for plants which must remain stationary, such as those herbs whose running roots would be bruised by the hoe.

Transplanting is best done when the ground is wet and the weather cloudy. If it is necessary to transplant when it is dry, the ground should be dug deeply, and the plants left in rich mud in the cellar till the cool of the evening, and then set out in a rich compost, such as will retain moisture, and be watered frequently till they have set or taken root.

Wood-ashes form a very valuable fertilizer to soils lacking phosphates. Coal-ashes are often used to lighten stiff and stubborn soils. Ashes from soap-boilers have been by many cultivators much esteemed. As lime and chalk form the principal portions of the ashes of soap-boilers, where a soil is found deficient in these substances, they may generally be applied with benefit. Ashes, as a manure, act power-

fully and quickly, but add little permanent value to the soil.

ASPARAGUS (*Asparagus officinalis*). This desirable and healthy spring vegetable may be raised by sowing the seed in the fall or early spring. The seed should be fresh and ripe, and put into rich soil, and covered about half an inch deep. Hoe carefully when the plants are up, and keep them free from weeds. After a careful cultivation, some gardeners remove the plants when a year old from the nursery bed; oftener, they are not removed till two years old. The bed they are to be finally put into should be trenched a foot deep, and well-rotted manure be worked into each trench several inches below the surface. Place the plants upright along the trench, and fill in with earth as you pass along, filling in carefully afterwards, drawing the earth round each plant with a rake or hoe. Throw on the surface some well-rotted manure. Sea-weed, if within reach, is an excellent manure for asparagus beds, which require an annual dressing. Old pickle brine may be put on in the fall. The bed should be placed in a sunny exposure.

Asparagus should be carefully cut, so as not to wound the coming buds; a sharp knife should be used, and the shoots cut a little below the surface of the ground.

Where you have a bed, cut asparagus just before you put it into the pot. Tie it in small bundles. Throw a little salt into boiling water; no more water should be used than just enough to cover the vegetable. If it boils too long, it will lose color and flavor; twenty minutes will generally find it tender. Toast some slices of bread quite dry, pour some of the water the asparagus was boiled in over it, and put a piece of butter on each piece of bread; lay the asparagus on the toast, and put a piece of butter on the asparagus. You may serve it with melted butter.

ATTICS. The upper rooms of a house should be kept religiously clean. The cook generally sleeps there. Turpentine round the corners of attic rooms is often sufficient to keep ants off. Ants also dislike all alkalies. Never have paper on the walls of attic rooms.

It is customary to reserve, in a large house, one room in the attic for such groceries and household matters as are improved by an occasional change into a dry atmosphere. Cranberries are sometimes spread on a coarse sheet in such a room. Loaf-sugar hung here keeps dry and hard. Certain wines are improved by an occasional visit here. Flower-seeds are spread in a sunny exposure to ripen in this room.

Curtains should be so placed that they may be easily taken down, else they will be a receptacle for insects. The floor should be provided with small domestic mats, never with heavy carpets. The floors can be easily washed up once a week, if painted yellow or lead-color. Let the bedsteads be often examined, and quicksilver beaten with the white of an egg placed around suspicious crevices. Put it on with a feather. Iron bedsteads are easily kept clean, as, after removing the clothes, a little camphene poured on to the bedstead, and ignited, effects a thorough purification.

BAKED MEATS. Meats dressed in the oven. (*Worcester.*)

Most good cooks object to the oven for the generality of meats; for though they lose less in actual weight by baking than by any other process, they are thought not to improve in piquancy and flavor. Some meats, all agree, make good family dishes when put into the oven in deep baking dishes. Veal, if not too rich, can be baked with less injury than most meats. A leg of mutton stuffed with herb stuffing, with slices of parboiled potatoes, artichokes, and bits of onion dropped into the pan, makes a good dish. Tomatoes cut up

and baked with meats lend them flavor, and mitigate their grossness. Vegetables should be sliced, and the solid roots parboiled and put in when the meat is half done.

Meats baked in the oven of a modern range, where the door is occasionally opened and the meat basted, bear a nearer resemblance to roasts than meats prepared in a common stove.

Tongues and hams soaked for twenty-four hours, and the water changed in the evening, are frequently taken out, and, after being wiped, put into a coarse paste, and set into the oven, and baked till tender. The paste is taken off before they are sent to the table.

BACON. Pork that is young, not over ten or twelve months, is best for family bacon. It should be well bled, and carefully trimmed.

For fifty pounds of pork, I have frequently used the following receipt: — Three and a half pints of salt, six ounces of saltpetre, and three pounds of moist sugar; rubbing in the saltpetre, and, mixing the salt and sugar together, rubbing it also in thoroughly. Allow it to remain in a deep wooden trough or tub for six weeks, turning it every day, and basting it with the liquor formed by the sugar, salt, and saltpetre. Take it out, dry it, and smoke it for three weeks.

Bay or Lisbon salt, or salt formed by the gradual action of the winds and sun, is thought to impart a milder flavor to meat than manufactured salt.

If you cure large quantities of pork, and your brine should become offensive with blood and slime, do not attempt to boil it over and skim and return it when cold, as is sometimes done; such pickle, diluted with water, can be used on a garden. Make a fresh brine, and, after having scalded your tub with a strong lye made of wood-ashes, and then with hot water, wipe your bacon dry, removing all slime, and

cover with your fresh pickle, poured on cold. Keep your bacon, while curing, under the brine by large weights or heavy stones.

Saltpetre dries meat, and is not used in such large quantities as formerly. I have known many good housewives have their pork rubbed with half the salt intended to be used, and covered for a few days, and save the remainder of the salt to be rubbed in with the sugar and saltpetre. Molasses is sometimes used for bacon instead of sugar.

Hams are sometimes rubbed with salt for a day or two, and put into a brine strongly impregnated with wine and sweet herbs. This does very well for small hams, that are intended for immediate family consumption.

Hams that are to be kept for some months, after being dried and smoked, should be put into a coarse canvas bag and whitewashed, and hung in some cool and dry place.

Bacon should be made only in the cool months.

If there is no place where you can send your bacon to be smoked, you can smoke it (but of course imperfectly) by taking out the end of an old cask, and filling the cask half full of green sawdust, and branches of some odoriferous trees, and bits of oak bark, and putting in some hot ashes and bits of heated iron, and raising one part of the cask by placing a small stone under it, so as to make a draft of air. Put pieces of iron across, and hang the bacon over on pot-hooks or pieces of coarse rope. Cover it. Be careful that it merely smoulders and smokes, and does not ignite.

The sugar-cured bacon of Virginia, and especially the hams, are justly entitled to their reputation. Their hogs mostly run about, and feed on acorns.

BALM (*Melissa officinalis*). This herb mixed with honey and vinegar, steeped and strained, is sometimes used as a gargle for a sore and inflamed throat. It does not re-

tain its strength when dried, and is mostly used green. See *Aromatic Herbs.*

BALM OF GILEAD. The buds of the Balsam or Balm of Gilead tree, gathered in spring and put into bottles with pure Jamaica spirits, are considered healing for bruises and cuts; the same decoction, taken by the teaspoonful (put into a glass of water) before a meal, once a day, is said to afford relief when the system has become enervated by local difficulties.

BANANA. The fruit of the West India Banana, if kept on ice, and brought to the table, after being washed in cold water, on grape-leaves, or a crimped napkin of undisputed whiteness laid upon a glass dish, makes an occasional variety for dessert. Some people eat with it salt and pepper, others prefer wine and sugar.

BANDBOX. This indispensable and much abused article has improved in modern times. It now appears in wood, fitted up inside with a pasteboard form, which is secured by a slide for the hat or bonnet to rest upon. None others should be generally patronized.

BANTAM. See *Fowls.*

BARBERRY, OR BERBERRY. The Barberry grows wild in America and Europe. It is easily cultivated. Trained to the single stem, the fruit grows larger, as the suckers are apt to render the fruit small, and the bush finally barren. It is grown from seed, layers, or suckers. There are several varieties. The Common Red grows large by cultivation in a rich soil. There are varieties of the common Barberry in Europe which bear pale yellow, white, and pur-

ple fruit, and which have the same properties as the common Barberry, differing only in color. There is a variety from Austria, called Sweet, but which is almost as acid as our common Barberry. The Common Red has a variety which is seedless, and consequently desirable for preserves and jellies, but it does not appear to be a permanent variety, as the plants frequently bear fruit with seeds, and the suckers always; and it is said, that, in order to guard against this degeneration, the sort should be propagated by layers or cuttings.

The Black Sweet Magellan Barberry is an evergreen from the Straits of Magellan, South America. It is rare, and has borne no fruit in this country as yet; but it is thought it will prove hardy. It has yielded fruit in Edinburgh, said to be handsome and excellent.

The Nepal is a variety from Nepal, India, where it bears a purple fruit, which is there dried in the sun, like raisins, and used like them at the dessert.

The Mahonias, or Holly-leaved Berberries from Oregon, are very handsome ornamental shrubs, with fine green prickly leaves, and yellow flowers, but the fruit is of no value.

I am indebted for most of the above information to Mr. Downing's pleasing and valuable work, Fruit and Fruit-trees of America.

There is a popular notion that the vicinity of Barberry bushes is unfavorable to the growth of grain, but it is unsupported by the weight of good evidence.

The tannin principle is in the bark of the Barberry, and it dyes, combined with alum, a bright yellow.

Barberry Jam.

Pluck from the stem barberries that are quite ripe, mash them, and mix with them not quite a pound of good, clean

brown sugar. Put the mixture into the preserving-kettle, and let it boil slowly for about three quarters of an hour, stirring and skimming it frequently; then let it boil rapidly for a quarter of an hour, taking care, by frequent stirrings, that it does not adhere to the kettle. Put it warm into a glass or china jar, and cover closely.

Barberry Jelly should be made of the stoneless variety, if it can be procured; make it in the same manner as you prepare currant jelly.

Barberry Preserve.

Barberries are easily preserved by choosing some of the fairest fruit, tying it in clusters to sticks, and boiling it in sirup. I once undertook to extract the stones from Barberries for a preserve. It was very delicious, and happily did good service; but as a general practice, it could only be recommended to Turkish women, who are said to employ their listless days in extracting seed from small fruits to be used in the manufacture of their sugar pastes. Sweet apples are sometimes preserved with barberries, in molasses or sirup. It makes a homely preserve much relished by children.

Hot water poured on preserved barberries, and allowed to cool, makes a grateful beverage for invalids.

See under *Pickles*, for the manner of pickling barberries.

BARK, PERUVIAN, Jesuit's Bark, Cinchona, or Quinquina. This bark was tested by the Jesuits while exploring South America. It is a valuable tonic, and a few doses administered in small quantities in the powdered state sometimes have a happy effect in cases of intermittent fever or ague. It is a useful dentifrice, if moderately used, giving hardness and a healthy tone to the gums, and imparting sweetness to the breath.

A tincture of this bark is made by pouring on four ounces

of the bark ~~two pints~~ 1 qt of purest alcohol; let it stand ten days, when it is to be carefully strained and bottled. It is an excellent and safe medicine taken in such proportions as circumstances authorize; as a tonic and stomachic medicine, a spoonful some hours before each meal is generally a good rule.

A decoction is also made with red wine, which is sometimes given to children of weakly, rickety habits of constitution. It is given in the forenoon and after dinner.

Slight excoriations of the skin, induced by chafes, are frequently relieved by this pulverized bark.

BARLEY (Lat. *Hordeum*) is an annual plant, but is often sown in autumn, when it ripens later, and is called Winter Barley.

Two-Rowed Barley (*Hordeum distichum*), or Common Barley, is the species generally cultivated in the United States. It is considered the most valuable, on account of its full berry and its general freedom from smut; it has numerous minor varieties, distinguished for some differences in the quality of the grain, for early or late ripening, or for more or less productiveness, features brought out perhaps by differences in culture and climate. This grain, whose native home is traced from Egypt and Syria, as far back as three thousand years since, matures in favorable seasons on the Eastern Continent as far north as seventy degrees. In warm latitudes two crops are produced in a year.

In the United States, the yield of Barley varies from thirty to fifty or more bushels per acre, weighing from forty-five to fifty-five pounds per bushel.

Both in the United States and in Great Britain, this grain is grown chiefly for malt, and for the manufacture of spirituous liquors. In France it is used for corn-bread, while in some warm climates it is given to horses, and is said to be as good for this purpose as oats.

Pot Barley, Pearl Barley, and French Barley are only barley freed from the husk by the mill, the distinction between them being the round, shot form of the Pearl Barley, which is caused by the sides of the grain being clipped off at the mill, leaving only the centre or heart.

We seldom export barley from this country, being consumers rather than producers of the grain. The virtues of barley for medicinal purposes are of great antiquity. Hippocrates wrote a whole book on the merits of gruel made of barley. Barley Water is a pleasant liquid to administer medicine in. (Farmer's Encyclopædia. Abstract of the Seventh Census.)

BARLEY WATER. Take four large table-spoonfuls of well-picked and washed Pearl Barley, and put it into a porcelain-lined kettle, containing two quarts of boiling water. Let it boil slowly till reduced to nearly one half the liquid. Strain it and season it with salt, and, if the patient's condition will admit of it, flavor it with white sugar and fresh lemon-juice. It is a grateful drink to invalids. See *Soups*.

BASTING. A dripping. Different liquids and substances that are used as corroboratives in roasting meats.

BATHS. All nations, in every stage of society, have indulged in the bath, from the savage tribes of North America to the magnificent Roman of eighteen centuries back; nay, the savages imitated the refinements of bathing by throwing into the waters of caverns heated stones, to produce the vapor bath.

No positive rules can be laid down with regard to the suitability of cold baths as a universal axiom. Feeble persons cannot always venture upon them, but should rather indulge in the tepid bath, which ranges from 60° to 97°.

The foot-bath is often rendered stimulant, in cases of sickness from colds, by the addition of a little mustard, or a little wood-ashes and salt.

Sea-bathing, at a distance from the sea-shore, may be artificially produced by dissolving bay-salt in fresh water. By this means the properties of salt water will be acquired, with the exception of sulphate of magnesia, which, however, is found in salt water only in small proportions. Dissolve one pound of bay-salt to each gallon of fresh water.

Cold baths, where they can be safely taken either directly or by the compromise of the sponge, tend to invite a most wholesome state of health and spirits, and to lessen the liability of colds. Baths, especially cold baths, should never be taken directly after meals.

BATTER. See *Fritters* and *Puddings*.

BAY-SALT. Salt made of sea-water by the action of the winds and sun, and lodged in bays and similar gulfs. Bay-salt is in large cubes, moderately white. St. Ubes salt is considered very pure. (Farmer's Encyclopædia.)

BEANS. The Broad Beans (English Dwarfs), of which the Magazan is a nice variety, should be gathered fully grown, but young. Shell them just before you cook them. Boil them rapidly in salted water till the skin will yield to gentle pressure. A bit of ham is sometimes boiled with them, but it injures the purity of their color. Make a gravy of melted butter and pour over them. Parsley may be boiled, chopped, and put into the butter. Do not allow them to swim in butter, — it looks gross, — the gravy being merely for seasoning. Many good cooks prefer bits of fresh butter placed in the dish.

Lima Beans.

Shell them while fresh, and boil them till tender in a full kettle of water with a little salt. Drain them, and put bits of butter over them.

These beans are often preserved in Virginia through the winter, by packing them when ripe (towards the last of fall if convenient) into clean jars or kegs. Take a dry day for the packing. Put a layer of beans in the pod into the keg or jar, and sprinkle salt over them, repeating the process till the vessel or tub is filled. When to be cooked, the beans are freshened by washing the pods, and then soaking them in fresh water over night. Put them over the fire into cold water and boil till tender.

Snap Beans.

Gather them when young, snap off the stalks, and pull off the strings; but do not break them, for if young they are nicer whole. Put them with a little salt into boiling water, and boil them for about fifteen minutes. Take them up and drain them in a colander. Put them into a dish with pieces of butter, or pour a little melted butter over them, or a made brown gravy. If the beans are old, put a bit of saleratus in the water they are to be boiled in, and cut the beans, and boil them rapidly. Do not let them float in butter or gravy.

Winter Dish of Baked Beans.

This dish is generally considered too hearty for warm weather. Pick the beans, wash them, and put them to soak over night in a good deal of water. In the morning pour this water off, and put them into a kettle of cold water and let them simmer till quite tender. Take them up, and drain them through a colander; when thoroughly drained, put them into a deep baking-pan with a large piece of scored salt-pork sunk

to the rind. Pour boiling water over them, and bake five or six hours; or if you have a good brick oven, keep them in over night. This constant change of water which is recommended has a tendency to diminish the flatulency of this vegetable, which too often induces gripings.

BEDS. Modern practice eschews the luxurious feather bed, and mattresses made of wool for winter use, and of horse-hair for summer, are mostly considered desirable beds. But though these materials largely supply the market, palm-leaf, cut straw, cornstalks, and various mosses are often used for filling mattresses. Springs are inserted in nicely made hair-mattresses to give them elasticity.

A large bed, to be comfortable, requires about sixty pounds of wool. If constantly used, it will need to be taken out every two or three years, carded, and a few pounds of wool added. Linen ticking is much nicer than cotton. Poland starch put on wet, and dried in the sun, will remove oil spots, and cleanse a ticking which may not need to be washed all over.

Pillows and bolsters, whether filled with feathers, or stuffed with hair, should be generously plumped, both for economy of wear and for comfort. Small pillows stuffed with hops sometimes quiet nervous headache, and induce sleep. Square pillows stuffed with horse-hair are prescribed for persons afflicted with weak or disordered eyes.

BED-CLOTHES. Linen sheets, excepting for a New England winter are much to be preferred. Russia sheeting is very substantial in wear. Sheets should always be made a little larger than the bed they are to cover; pillow and bolster cases should always fit easily. In covering pillows, a case of strong thick muslin slipped on before the linen one has a comfortable clad look. Pillow-cases are often made

for buttons and trimmed with a frill, the square ones being trimmed on all the sides.

Blankets which are not in use should be kept closely folded in Russia sheeting, with bits of camphor, and put in some cool, dark closet, or packed in camphor trunks, if such are in the house.

It is well, where it is convenient, to have the outside quilt correspond in quality and color with the carpet and curtains, and the general furniture of the room. Where bed-curtains are hung, they are generally of the same material as the outside coverlet.

Stuffed coverlets, or poor man's blankets, as they are frequently called, are made sometimes of soft lawn from dresses that have been put aside, with a thin layer of all-wool wadding, which comes now in sheets as cotton does. They are inexpensive, and are often grateful to invalids when heavier materials would be oppressive. I have seen a very nice stuffed coverlet, made of a dozen large East India silk pocket-handkerchiefs, each a yard square, filled with eider-down; both sides were alike, and the coverlet of a good size. It was very light and very warm. Silk dresses, when laid aside as dresses, make nice stuffed coverlets.

BEECH (*Fagus sylvatica*). This tree is one of the handsomest of England's forest-trees. It is native to the greater part of the North of Europe. The red and purple are seedling varieties of *Fagus sylvatica.*

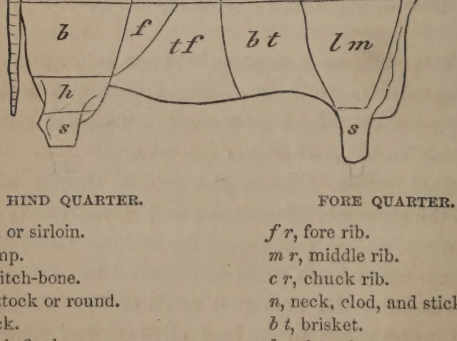
The Red Beech (*Fagus ferruginea*) decays when exposed to the extremes of moisture and dryness. It does not readily warp, and is much used for making tools, for which its hardness and smooth grain recommend it.

Beech mast, or the nuts and seeds of this tree, yield on pressure an oil equal to the best olive-oil, and which keeps without acquiring a rancid taste longer than olive-oil. In

England, it was once much used in the place of butter. Roasted, the nuts have often formed a substitute for coffee. (Bigelow, Farmer's Encyclopædia.)

BEEF. The virtues of our ever-to-be respected ancestors have always been largely attributed to the excellence of their beef. It is related of an old blunt English commander, that at Cadiz he addressed his soldiers in these terms: "What a shame will it be to you, Englishmen, who feed upon good beef, to let those Spaniards beat you, that live upon oranges and lemons."

By virtue of his extensive and constant experience, the London butcher must be installed as a judge from whom the wise will not appeal; and his mode of cutting up a carcass is, I believe, followed in the main features in our large cities. The figure below represents the English mode of cutting up a carcass of beef.



HIND QUARTER.

l, loin or sirloin.
r, rump.
a b, aitch-bone.
b, buttock or round.
h, hock.
f, thick flank.
t f, thin flank.
s, shin.

FORE QUARTER.

f r, fore rib.
m r, middle rib.
c r, chuck rib.
n, neck, clod, and sticking.
b t, brisket.
l m, leg-of-mutton piece.
s, shin.

The principal roasting-piece is *l*, the loin or sirloin; *r*, the rump, is the favorite steak-piece, while *b*, the buttock or round, is very nice boiled, when corned, and is the piece chosen *par excellence* for the popular dish, beef *à la mode*. The flanks, (*f*, thick flank, and *t f*, thin flank) are also nice for boiling, when corned; *h*, the hock, and *s*, the shin, make nice soups, and afford what is technically called *stock*, while *t*, the tail, is used for ox-tail soup. These are the pieces in the hind quarter.

In the fore quarter, *f r*, fore rib, *m r*, middle rib, *c r*, chuck rib, are all roasting-pieces, but not of equal excellence. The part of the shoulder-blade of the middle rib being removed, the spareribs below make a good broil or roast. *n*, the neck, is used fresh for soup, and the back end of the brisket, *b t*, is boiled, corned, or stewed. *l m*, leg-of-mutton piece, is coarse, but is as frequently stewed as boiled. *s*, the shin, is used for the same purposes as the shin and hock of the hind quarter.

It will be observed that the most valuable pieces, the roasting, are upon the upper part of the carcass; and the inferior, the boiling, occupy the lower part. Every beast, therefore, that lays on beef on the upper parts of its body is more valuable to the butcher, than one that lays the same quantity of flesh on its lower parts. (Stephens's Book of the Farm.)

There is no difference in price between heifer and ox beef, both being equally well fed. The lean of ox-flesh has a brighter red, and the fat not so clear a white as heifer-beef, and it is generally thought a little richer than cow-beef. Good beef should have a tender feel, a bright red color in the lean parts, and be white in the fatty portions.

À la mode Beef.

Take a piece of the round of beef, eight or ten pounds, cut out the bone, and tie your beef in a handsome round shape; with a small, sharp knife make incisions in the beef,

cutting deeply inside, but have the cut on the outside small. These holes are to be filled with the stuffing, which also is partly reserved for the force-meat balls. Put your beef into a large pot, so that it may lie flat, with water nearly sufficient to cover it; season with salt, pepper, cloves, and one onion, a little sage, or any sweet herb you prefer.

Let the beef boil slowly for two hours, then add a pint of red wine, a little tomato catchup, and then put in your balls, and keep them in for twenty minutes. If the gravy boils away, add a little water.

Force-meat balls for the above are made thus: — Take a loaf of baker's flour-bread, grate it, add an equal quantity of beef-suet, chopped very fine; season it highly with pepper, clove, salt, nutmeg or mace, cayenne, and sweet-marjoram. Wet the whole, after thorough mixing, with eggs. Roll them into small balls. If you wish to fry some of the balls, take but little butter, as the fat fries from them.

This dish *warms up* very nicely, especially if that which is left be covered, and allowed to lie in its gravy.

Beef, Corned.

Beef that is to be corned should be thoroughly rubbed with part of the salt intended for the pickle, covered closely, and allowed to remain for three days; it is well, where it is possible, to rub the salt in before the animal heat has "all gone by," the passage of the bloody slime being facilitated by a little animal heat. A mixture of rock or Liverpool and Bay salt is nicest for curing meats. After the meat has lain in the salt for three days, take it out and brush and wipe it with a damp cloth. Pack the pieces closely into a clean tub, and between each piece sprinkle salt, putting also salt on the bottom of the tub, and laying the fleshy parts downwards. Pour the pickle, prepared as below, when it is quite cold, over the whole, taking care to have the meat

kept covered with the pickle by great weights or stones, and excluded from the air by a wooden cover, or boards nailed closely together.

Pickle for Beef.

Take four gallons of water, to which add one pound and a half of sugar, five ounces of saltpetre, and six pounds of salt. Put the whole into a clean pot, and let it boil; take off the scum constantly as it rises, remove the pot from the fire when the liquor looks clear, and when cold cover your meat with it.

Another.

To six gallons of water, put six quarts of Liverpool and Bay salt, three pounds of brown sugar, three ounces of saltpetre, one ounce of pearlash, and one gallon of molasses. Proceed as above.

A salted round of beef, containing seventeen or eighteen pounds, requires to simmer slowly at least four hours. Brisket, of nine or ten pounds, should be boiled slowly, or simmered for three hours.

Where a round or rump of beef is to be cured alone, it is frequently rubbed with mixed salts and spices, and basted with the brine every day for five or six weeks; and it may be taken out and dried or boiled out of this pickle.

TONGUES.

Tongues are cured in the same way. Bacon pickle, where it has been nicely prepared, will cure tongues after the hams have been removed.

Tongues salted and dried are steeped in a weak brine, washed out, and rubbed with salt by the hand. Allow them to remain twenty-four hours in the salt, then wipe with a damp cloth, and rub again with salt and brown sugar. Cover them with pickle for a fortnight; take them out, wipe them, rub them with bran, and make a hole through the root;

pass a twine through it, and hang them in a cool, dark place after they have been smoked. Tongues, when fresh, require two hours to boil; but if salted and dried, they will take from three to four hours, and will require to be soaked twenty-four hours, and the water to be changed at night. Salted meats must be put into a great deal of cold water when they are to be cooked, and simmered, and never boiled hard.

For baked tongues, see *Baked Meats*.

Beef, Roasted.

The sirloin, rib-pieces, and in small families the piece that is left from the rump after the steaks are cut off, are all roasted. The fire should be got well going, with a substantial constitution, before the meat is put down. Sometimes a backlog of tan, or wet ashes, thrown in at the back of the chimney, throws the heat in front. When the fire is to be stirred, the meat should be drawn aside, to escape the smoke and ashes. In the first stages of the roasting, place the tin-kitchen or roaster at a distance from the fire, and baste frequently with water, seasoned with a little salt. Meat should get thoroughly heated through before it begins to brown. Where beef is very fat, the dripping-pan may be emptied once or twice, and still enough remain to make the gravy. Beef dripping is very nice for frying potatoes and breakfast cakes, when it has been nicely clarified. As the meat assumes a rich brown, a little flour can be sifted over it from the dredging-box, but the meat must remain long enough to brown it. A sirloin weighing fifteen to eighteen pounds will take four hours of roasting; but ribs of the same weight will be done in half an hour less.

Beefsteaks.

Beef for steaks, though it does not require to be mellowed by time so long as a large roasting-piece, eats tenderer for being three or four days old.

Rump steaks are preferred by many, but in New York steaks from the sirloin or spareribare thought richer and more tender; the bone is chopped away, and the fat partially trimmed. Steaks should be cut of an even thickness, and not quite an inch thick. Have a fire of clean, bright coals, heat the gridiron, and rub the bars with a little suet; throw a very little salt over the coals, and do the steaks as quickly as possible, turning them quickly. Have your dish hot, and put pieces of fresh butter on the steak, with a little salt. If the beef is prime, no water or catchup will be required. Serve immediately while it is hot, and its rich juices will be honor enough for it. Twelve or fourteen minutes will cook steaks of the above thickness.

Beefsteak Pie.

Cut steaks quite thin, and flatten them, turn them over in some mixed spices in which is a little pepper and salt, lay them in the bottom of the baking-dish, and place bits of boiled onion and fresh butter over them. (Omit the butter if the beef is well mixed with fat.) Fill the dish a little more than two thirds full, sprinkling onion between each layer of meat. Pour over the whole a pint of boiling water, highly seasoned with walnut catchup. Put the dish away to get cool, then cover it round the lid with paste, and cover with ornamented paste. It is well to have a centre ornament, that, when the pie is baked, can be removed, and afford an opportunity, should it have baked dry, of adding fresh hot liquor before it goes to the table. Any pieces that have been left from a roast or steak will make this pie.

Brisket of Beef.

The Brisket of Beef may be boned and baked; then it is laid in a deep pan, seasoned with salt and mixed spices, walnut or mushroom catchup, and a pint of port wine, and dredged with flour. Bake three hours. Skim the fat off.

It is also as frequently stewed. Boil it in just water enough to cover it; when tender take out the bones, skim off the fat from the liquor it was boiled in, and season with salt, pepper, walnut catchup, and a little red wine; thicken it with browned flour stirred into melted butter. Flour is browned by putting some over the fire in a flat dish, and stirring it till it is brown and of an even color. The butter softens the smoky taste that browned flour generally acquires. Pour the gravy hot over the meat, and garnish with carrots cut in thin slices and fried a delicate brown.

Collared Beef.

Take the thin flank, rub it thoroughly with salt and a little saltpetre, and let it drain over night. In the morning wash it, cut out the gristle, and remove the outer and inner skin. Pound a little clove very fine, mix with it salt, pepper, and a little sugar, rub the mixture thoroughly in, and let it remain over a week in the pickle that will make, turning and basting it every day. Take it out of the pickle and roll it up as tight as possible; bandage with strips of strong cloth, and tie these with tape. Put it into cold water and let it simmer for five or six hours. When done, place it between boards, and press it with heavy weights until perfectly cold. This is usually sliced cold; the ends should be trimmed whenever sent to the table whole.

Hashed Beef.

Hashes are generally made of cold meat. Cut away all the gristle and the burnt pieces, and let the slices remain in the juices of the meat. If you have no ready-made stock, prepare a broth from the bones and outside pieces; strain it through a coarse sieve, and season it with some catchup, pepper, and salt; heat it again, and stir the meat into it just before it is sent to the table, allowing it only time enough to

heat through. Cut the meat into such pieces as suits convenience, either in mouthfuls or slices; but they should not be thick. Garnish with bread cut in the form of dice, and fried in strained beef dripping, or with toasted bread soaked in the broth.

Beef Heart.

Cut the heart, and put it to soak in water, that the blood may ooze out. Wipe it, and trim it, cutting the lobes out; make a stuffing of grated baker's bread, spices, and salt, wet with eggs; stuff the heart, and sew it up. Roast it with paper over it. A large heart will take two hours and a half to cook.

Beef Liver.

Be sure that it is fresh. Soak it in cold water a few minutes. Take it out and wipe it dry. Fry out rashers of salt-pork, and lay slices of the liver, cut three quarters of an inch in thickness, in the frying-pan, and fry them slowly till they are brown. Beef kidneys are served in this way, excepting that butter is used instead of pork, and when they are browned, a catchup sauce is poured over them hot.

Minced Beef.

Cut the beef very fine, and take potatoes enough to make one third of the dish, mash them smoothly with a little cream or melted butter, and stir them into the meat with a little pepper and salt. Moisten the whole with beef gravy or dripping, which has been nicely strained. Put it into a small kettle, and let it brown. This dish is made from the *débris* of roast meat.

Beef kidneys may be minced very fine, and seasoned highly with pepper and salt, and fried brown in butter, put in a hot dish, and a gravy seasoned with walnut catchup poured over them.

Pressed Beef.

The brisket, flank, and thin part of the ribs are the pieces which are pressed. Take out the bones, salt and season the piece with such spices as you prefer, and let it lie about a week closely covered. Boil it slowly till tender, take it from the pot, and press it under heavy weights till cold. It sends the juices through the beef, and by remaining pressed till cold cuts in thin slices.

Beef Udder.

This is eaten in Virginia, either boiled fresh and cut in slices when cold, and served with salt and mustard, or it is salted for a day or two and eaten cold. It is sometimes boiled, chopped fine, and used for stuffings.

BEES. These little creatures love thyme, mignonette, alyssum, and honeysuckle. Hives should never be placed in a roofed stand; it heats the bees, and frequently induces them to form on the outside of their hives. They should be placed in a sheltered part of the garden, but with sufficient space around them to allow the attacks of their depredators to be seen and warded off. If no water is near, place shallow pans near the hives with water and a little salt, and have bits of stick float on the surface, to prevent the bees drowning by slipping from the sides of the vessel. In the early spring, and late in autumn, before you house them for winter, they must be fed. For this purpose, put to a quart of beer one pound of sugar, and boil it five minutes only.

Never destroy bees. They live only one year, and in killing them, the young bees that would work in the spring are lost. The year-old bees die in August. By smoking the bees with tobacco while working upon a hive, they are rendered harmless. Sticks in the hive are useless and inconvenient.

If stung, extract the sting, apply immediately sweet oil, laudanum, or Goulard's extract, which is a preparation used for inflammations, and so called from the inventor. (Farmer's Encyclopædia.)

BEESWAX. This substance has been classed with vegetable matters; but the experiments of Huber have shown that it is produced by the bees themselves, and not gathered by them directly from plants. When the honey is drained from the wax, it can be purified for domestic uses by tying it with something heavy in a bag, and putting the bag into a pot of clear cold water. As the water heats, the wax will be thrown to the surface. Skim it off, and place it in saucers, and expose it to the light and air, and occasionally wet it with water, till it is whitened or bleached.

Bayberry, Candleberry, or Myrtle wax (*Myrica cerifera*) is a harder substance than beeswax, obtained from the berries of the myrtle by boiling them in water. (*Bigelow.*)

BEER. Though beer is chiefly made of malt and hops, there are some simple beverages in which only the latter is used, and others in which a substitute for hops is found.

Children's Beer.

To three spoonfuls of ginger pour a bucketful of boiling water. Allow it to cool, then add to it one pint of good yeast, and one pint of molasses. Cover it with a coarse cloth, and let it stand in a cool place. Bottle in the evening.

Molasses-Beer.

Put to six gallons of soft water six pints of West India molasses and a handful of hops tied in a muslin bag, and let it boil twenty minutes. When it has cooled, put to it a pint of lively beer yeast. Cover the beer with a coarse cloth,

and when it has done fermenting, pour it off into clean bottles, and stop with good cork-wood corks. See *Ale.*

BEETS. Beets are boiled till tender, to be eaten with salt cod-fish. Wash, and, without scraping, boil them whole. They are used to ornament salads. They make, when boiled, and put into vinegar, either sliced or whole, a cheap and wholesome pickle. When quite small they may be boiled with the leaves for greens. See under *Art of Gardening.*

BERGAMOT. The well-known oil or essence of bergamot, which is imported from the South of Europe, is extracted from the rind of the fruit *Citrus bergamia*, which grows on a moderate-sized tree that bears small white flowers, and fruit of a pyriform shape and pale yellow color. The rind is filled with oil-vesicles. (Farmer's Encyclopædia.)

BIRD-PEPPER. A variety of Capsicum, sometimes called Bird's-bill, or Long Red. It yields Cayenne pepper when dried and pulverized.

BLACKBERRY. The Bramble is native to this country. The varieties esteemed for the table, and sometimes cultivated, are, —

High Bush (*Rubus villosus*). This bush grows four or five feet high, produces white flowers, and its berries have a spirited piquancy.

Low Bush (*Rubus Canadensis*), or Trailing Blackberry. A trailing prickly shrub, throwing out, as the above, white blossoms. The fruit is sweet, but has hardly so much spirit as the first.

The soil should be well worked, and enriched with ashes, leaves, and vegetable mould, besides other fertilizers, to produce handsome fruit. Propagate by seed and by off-

shoots at the root. Cut away old wood, and cultivate the new. (Cole's American Fruit Book.)

There is a variety which yields white fruit, but it is rarely seen.

Blackberry Cordial.

Take fine, ripe fruit, rejecting, as you pick them over, those of reddish hue; squeeze these berries through a flannel bag. To a quart of juice put one pound of best loaf-sugar. Put it into a stone-jar and let it remain three days, the first day stirring it frequently. On the fourth day strain through a sieve, and to a quart of the juice add a quart of brandy. Bottle for use. This is excellent for summer disorders, if taken in moderate quantity, and repeated occasionally. See *Jelly*.

BLACKING. Liquid or paste, for blacking and polishing boots and shoes.

Liquid Blacking.

Wet four ounces of ivory-black with a table-spoonful of sweet oil, mix it to a smooth paste, beat into it gradually four spoonfuls of molasses; add to this one half-pint of good vinegar, one half-ounce of oil of vitriol, one ounce of lavender-water, mixing well as you proceed, and, lastly, the juice of one lemon.

BLANCMANGE. One ounce of Russia isinglass is sufficient for one quart of milk, but the other kinds will require half an ounce more to each quart. Let the isinglass be dissolved in as little water as possible, taking care that it does not burn, and that it is a transparent liquid; stir it into a quart of milk; season it with rose-water and a stick of cinnamon, and sweeten to your taste; put it into a porcelain kettle, and let it boil. Strain it through a flannel jelly-bag, and

put it into moulds. If you wish the coloring of corn, beat the yolks of two eggs lightly, and stir them to one pint of milk.

Blancmange appears in a vast variety. It may be made of rice, swelled in hot water, and boiled in rich milk to a mash; it is often made of calves' feet stock, of sparkling gelatine, and many preparations of isinglass, and flavored with vanilla, chocolate, or what you please.

Moulds should be left damp with cold water before putting in the blancmange. A cloth dipped in hot water is sometimes laid over the bottom of the mould where there is any difficulty about its turning out. See *Almond Blancmange.*

BOILING. Meat, whether fresh or salted, smoked or dried, should always be put into cold water; the only exceptions being with fowls and white meats, where the water may have the chill taken off, and salted meat that does not require to be much freshened. Dried meats and fish must be soaked for several days before they are boiled.

The delicacy of meats, and their integrity of color, are greatly preserved by the constant removal of the scum which is thrown up in boiling. It is a good way when it makes its strongest appearance to throw in a little cold water, and bring it to a mass, and take the pot off and carefully remove it; if any adheres after the meat is boiled, dip a cloth in hot water and wipe it off. Never pierce meat that is boiling with a fork; the juices escape.

Pot liquor, or the water in which meat has been boiled, is useful for stock, especially that in which fresh lamb, mutton, or poultry has been boiled.

Boil or simmer meat slowly, particularly after the scum has risen generously.

Dried and salted meats require twice the time to cook that fresh meat takes.

Cabbage and greens are often cooked with corned beef. Where the liquor is to be used afterward, such vegetables may be boiled in a separate pot, and some of the pot liquor of the meat may be transferred to the vessel they are boiled in.

Old hams should be soaked twelve hours before boiling them, the water frequently changed, and when boiled, they should be put into a large pot filled with water.

BONNY-CLABBER. In New England, milk soured to this form is administered to poultry and to pigs; in warmer latitudes we have seen it served up, while fresh, with nutmeg, sugar, and wine. Under such treatment, and placed in delicate china, it makes a pretty dish, and eats well on a hot day.

BOOK-MUSLIN. These muslins are popular for dresses, because they do up nicely, and can be worn a few times before being washed. They should be of a good white, for blue whites, whether for bonnets or dresses, are unbecoming even to the young and lovely.

In washing this muslin, prepare a warm suds made of white bar-soap, and squeeze it gently through two or three of these suds, and rinse in pure water as many times; lastly, put it through a thin starch-water. Pick it carefully apart, and hang it in the sun, over a dry white sheet. Take it in, sprinkle it evenly, and fold it in a white towel, and let it remain some hours in the clothes-basket. When you take it out, clap it with your hands to *clear-starch* it, as it is technically called, and iron before it is too dry, on the wrong side.

BORAX. This salt is sometimes efficacious in correcting cutaneous eruptions. Dissolve an ounce of borax in a quart of water, and with a soft sponge bathe the face, night and morning.

The eruption induced by the working of a small insect under the skin has been removed by rubbing the flour of sulphur on the face with the finger, every morning, while the face is still damp with the morning bath, and afterward dusting it off with soft linen.

BOX-WOOD. The Box-tree (*Buxus sempervirens*) is from the South of Europe. Its wood, of yellowish color and compact, hard grain, is employed for musical wind-instruments and mathematical instruments. Wood engravings are also cut in this wood. The surface is planed with great care, the design being drawn upon this smooth surface with a black lead pencil. The pencillings are left in relief, gravers or chisels of different sizes being employed to cut away the spaces between the pencil-lines. The wood is cut across the grain into pieces of the height of common types, to increase the strength and durability of the engraving. These blocks may be inserted in a page with common types, and printed without extra expense. They are very durable, and can, if required, be multiplied by the process of stereotyping. (*Bigelow.*)

Wood-engraving owes its modern revival to ancient excellence to Thomas Bewick. Cross-hatching, as practised by Albert Durer and the old engravers, had fallen into disuse, probably from the amount of time and labor required for its execution, and was even forgotten when Bewick introduced gradation of shade and variety of tints, consequently more natural perspective, by leaving certain parts of his block less prominent than such as were to produce the strongest lines, taking care, however, that all the lines should give an impression upon the paper which was to take picture. By such means he attained the delicacy of gradation to be found in copperplates.

The ease with which wood-engravings can be set in with

type, and the number of impressions that a block gives without being recut, are among its advantages; a good wood-cut often yields fifty thousand impressions. (Pursuit of Knowledge, Art. *Bewick.*)

BRANDY. Brandy is often obtained by the distillation of wine; at its greatest strength it contains between forty and fifty per cent of water. The best brandies, says Davy, seem to owe their flavor to a peculiar oily matter, formed probably by the action of tartaric acid upon alcohol. The Cogniac brandies contain prussic acid. (Farmer's Encyclopædia.)

BRASS. This metal consists of copper and zinc. There are various ways of cleaning brass. A solution of oxalic acid is frequently applied; but from its being a virulent poison, there is always an uneasiness experienced in having it used. I have always found brass kept clean longest by being well rubbed with rotten-stone wet with sweet oil, and then rubbed with dry, pulverized rotten-stone. Whiting has merely a temporary effect on brass. Bits of wash-leather and silk are good for the final polishing.

BRAWN. This preparation is often sold in the market. Many persons prefer to have it home-made.

Take the head and feet of a hog that have been nicely cleaned; have the head cut apart and the ears taken off and cut. Put the whole into a pot and boil them till they are quite tender and fall from the bones. Take the meat out into a large deep dish; cut it with a sharp knife till it is quite fine, removing every bone and gristly piece. Season this mince highly with salt, pepper, and a little finely pounded clove and pulverized sweet herbs, mixing all well together. Tie the mince in a large, thick cloth, and hang it with a dish

under it near the kitchen fire, and let it drain. When it has done dripping, set it away in a cool place, but not where it will freeze. This is sliced cold, and eaten with mustard. It will keep, if the cloth is kept around it, several weeks.

When the water is cold that the meat has been boiled in, skim the liquor; top-fat nicely clarified being useful to fry griddle-cakes or vegetables. The remainder of the liquor is nice in a veal or pork pot-pie.

BREAD. Stir into a quart of water which has been made a little warm, a cup of yeast, and sifted flour enough to make a batter tolerably thick. Let it rise. In summer, if yeast and flour are good, it will rise in about six hours; in winter, though covered near the fire, it will take nearly twice the time. When the batter has risen, have ready half a pound of sifted meal, which has boiled with a little salt and a pint of water for over an hour; stir into the meal a piece of butter the size of a goose's egg; mix it into the batter, with flour enough to make it stiff, and beat it with a strong spoon for a long time very hard. Let it stand five hours, or less time if it rises well. Knead it well, and bake.

Yeast for the above may be made thus: — Two quarts of water, one handful of hops; pare a potato and boil it dry; stir into two cups of sifted flour a very little cold water; strain your hop-water on to the flour, stirring it all the while; mash the potato very fine, and add it to the flour; one spoonful of clean sugar may be put to it, and when cool enough add a little yeast to make it rise.

Milk Yeast Bread.

One pint of new milk, one pint of boiling water; stir in flour enough to make a thick batter. Set this to rise in a place where it will be kept quite warm. As soon as it is

well risen, mix this batter into dough for bread. Shape it into rolls or loaves as you please, and let it rise for twenty minutes, and then bake it.

Wheat Bread.

One quart of unsifted wheat-meal, one pint and a half of water, made a little warmer than rain-water, a salt-spoon of salt, half a teacupful of molasses, one gill of yeast, two teaspoonfuls of saleratus, and one cup of rich milk. Knead it well, and add a little sifted meal to make it of proper consistency, being careful, however, not to have it by any means stiff.

It is well to get new wheat, as it bakes better. Bake seasonably, or this mixture will become tart. It is nice baked in muffin-rings on a buttered tin sheet in a quick oven.

The best flour is always cheapest, both as regards health and actual measurement. Yeast should be made often, and the yeast-jug kept sweet by being scalded each time before fresh yeast is put in. Brewer's yeast is much stronger than home-made yeast, and a large spoonful is sufficient for one quart of flour. If dough is thought to have become acid, a little saleratus must be kneaded in; but as little saleratus should be used as possible in making bread.

BREWIS. Pour milk over crusts of bread, and let them soak for a few minutes; boil them in the milk for twenty minutes. Stir in, just before you take it up, a small piece of butter.

BRITANNIA. There being both lead and copper in this metal, when used for teapots it should be nicely scalded, wiped dry, and the cover left open on being set away in the

closet. The outside is cleansed with a paste made of rotten-stone and oil, applied with a flannel rag, washed off with a suds made of white soap, then wiped dry, and polished with whiting, applied with wash-leather or soft linen.

BROCCOLI. This vegetable is cooked much in the same way as cauliflower. See *Cauliflower.*

BROILING. The fire should be burned down into clear coals, free from smoke, when the delicate task of broiling is undertaken. Before the gridiron goes over, sprinkle a little salt on the coals. Beef-steaks are generally cut three quarters of an inch thick. In broiling it is necessary to keep turning the steak that the juices may remain in. Steak-tongs are convenient for turning; where a fork is used, it should be placed in the fatty portions to turn the meat. Remove the meat when the fat catches till the blaze is out.

The gridiron, both on the upper and lower side, should be kept scrupulously clean. Before a steak is put on, the gridiron should be heated for about five minutes, or till quite hot, and rubbed with beef-suet for meat, and with chalk when fish is to be broiled. It is well to have one gridiron for meat and poultry, and another for fish. Double gridirons are kept closed till the steak is done. A beef-steak three quarters of an inch thick takes from twelve to fifteen minutes to cook. Sprinkle a little pepper and salt over as you put it down. When done, have the dish hot you put it into, but not so hot as to dry the gravy. Put bits of butter into the dish. The best of beef-steak requires no catchup.

Kidneys when broiled should be skewered, to prevent their turning with heat, as must also chickens and pigeons, and be taken off occasionally and rubbed with butter tied in

a muslin bag, and when dished, sprinkled with salt and pepper.

Veal and lamb cutlets should be cut half an inch thick, and may be dipped in egg and bread-crumbs.

Mutton-chops are broiled much as beef-steaks, excepting that mushroom sauce is often used.

Pork-steaks are not cut so thick as beef or mutton, and they take longer time in cooking, and require a hot fire. They may, previously to going on to the gridiron, be rubbed with pulverized sage, pepper, and salt.

BUCKTHORN (*Rhamnus catharticus*). The shrub used for hedge-rows. The juice of the unripe berries yields the color known as *sap-green*, used principally in water-colors.

BUCKWHEAT. This plant, says Professor Low, belongs to a family, the *Polygoneæ* or Dock tribe, which is known to farmers as affording a class of common weeds.

Of the genus *Polygonum* there are two species cultivated in Europe for their seeds: —

1. Common Buckwheat, *Polygonum Fagopyrum.*
2. Tartarian Buckwheat, *Polygonum tataricum.*

The first is the species commonly cultivated. The latter is of larger growth, and is said to be more hardy; but it is less productive of seeds than the Common Buckwheat. A third species is cultivated in China and Chinese Tartary, Notch-seeded Buckwheat, *Polygonum emarginatum*, which resembles the Common Buckwheat in its habit of growth. All these species are annual.

Common Buckwheat bears white flowers, tinged with red. Its stem is full of knots, and rises to the height of two feet or more. The plant is of rapid growth, continues to flower long, and bears at the same time flowers and ripened seeds. (Elements of Agriculture.)

On account of an increasing demand for this grain, it is much more cultivated in the United States than formerly. In some of the Western States the yield per acre has been stated as reaching twenty-five, thirty, and even fifty bushels. In New England it is often cultivated successfully. It grows best on the lighter soils. Birds are apt to attack Buckwheat, and the young plants are sometimes injured by frost. The seeds of the Buckwheat are given to horses, to hogs, and to poultry.

In the United States its use as a breadstuff is almost entirely limited to cakes.

Buckwheat Cakes.

Take a quart of warm water, (milk, if to be had, is better,) put a little salt to it, and stir in enough buckwheat flour to make a thin batter. After it is smoothly mixed, add six table-spoonfuls of home yeast, or half this quantity of brewer's yeast. Set this batter where it will be kept a little warm over night. In the morning stir in about a salt-spoonful of soda or saleratus, and a large spoonful of sirup or molasses. Put them in just before the griddle is ready for the batter. The molasses is thought to make the cakes fry a delicate brown, and to crisp the edges.

The griddle should be merely greased enough to keep the cakes from sticking; a bit of white rag is sometimes tied on a fork, and from time to time wet with a little lard, or the griddle may be rubbed with a piece of salt pork. Buckwheat cakes should be made very thin, and served in the course of the meal, from time to time, hot from the griddle.

These cakes are sometimes mixed without yeast, where they are wanted before the batter could rise. In such cases you dissolve in warm water a teaspoonful of carbonate of soda, and stir it in the batter; then dissolve in warm water a teaspoonful of tartaric acid, and stir this in also. You

may use a quart of warm water or milk to make the cakes by this receipt.

BUDDING. The practice of inserting buds into trees is a more common way of grafting than any other method adopted in the United States. Its chief advantages are the rapidity with which it can be performed, the length of time in which it can safely be undertaken, and the harmlessness of the trial, which, if the budding fails, can be repeated on the same stock without any detriment.

Budding is particularly preferred for stone fruit, such as Peaches and Apricots, which are more easily budded than grafted. The operation is performed from the first of July to the middle of September, when the bark of the stock slips up or separates readily from the wood, and the buds of the current year's growth are a little plump, and the young wood is growing healthily. A budding-knife is used. This knife is about four and a half inches long, has a round blade, and an ivory handle finished at the end with a thin, rounded edge, called the *haft*. This knife must be kept very sharp. A substitute for the knife is sometimes found by cutting a piece of hard wood into a thin taper form.

Previous to budding, what is technically called *a stick of buds* is selected, that is, taking a cutting from a healthy tree, clipping off imperfect buds at the lower end, and such as may be young and immature at the upper end, leaving firm, healthy single buds, double buds being fruit-buds. Trim off the leaves, but not too closely, for the footstalks are convenient in handling the buds. Have pieces of soft matting or yarn ready to tie round the buds. Bass matting, soaked in water till flexible, is often used.

Shield or T budding is the method generally practised. This consists in making a cut through the bark with your budding-knife an inch or an inch and a half long, and at

the top of this making a cross cut, so that the incisions form a T. Now cut very carefully from your stick of buds a smooth, thin bit of wood and bark containing a bud. Insert this bud to the bottom of the incision, under the bark. If on being pushed gently, as directed, the bud projects above the horizontal slit, trim it carefully to make it fit. Bandage it carefully with soft matting, leaving only the bud and the footstalk of the leaf exposed to the light.

If the bud takes, in about two weeks there will be a plumpness that will indicate the union of the bud with the stock; if it has, however, failed, provided the bark peels readily, a fresh trial may be made. In about a fortnight, if the operation have been perfected, the bandage may be loosened, and if the stock has swelled much, it may be removed entirely, though, where the budding is performed late in the season, the bandage is sometimes left on for the winter.

In the following spring, the buds having swollen, the stock is headed down with a sloping back within two or three inches of the bud, and the shoots of the stock, or "robbers," as they are styled, must be removed from time to time. (Downing's Fruits and Fruit-trees of America.)

The same excellent authority from whom we take the above also remarks, that, to secure the upright growth of the bud, and to prevent its being broken by the winds, it is tied when a few inches long to that portion of the stock left for the purpose, removing this support in midsummer when the shoot appears strong, and cutting away the superfluous portion of the stock, which will be rapidly covered with young bark after being thus smoothly trimmed.

Mr. Knights's mode of tying with two distinct bandages is also recommended by Mr. Downing, one covering the part below the bud, and the other the portion above it. In this case, Mr. Downing has said, "the lower bandage is removed

as soon as the bud has taken, and the upper left for two or three weeks longer. This, by arresting the upward sap, completes the union of the upper portion or bud, (which in Plums frequently dies, while the lower part is united,) and secures success."

BUFFALO-BERRY, OR SHEPHERDIA. This shrub, with its beautiful silvery leaves, bears a small berry, which makes a good preserve. The trees are male and female, and are set in pairs from six to ten or fifteen feet apart. (Cole's American Fruit Book.)

BUNNS. These cakes are thought to have the sanction of antiquity, being named from a kind of sweet, light cake offered to the gods, and called *Boun*. Leaving such investigations to the curious, we would only remark that the term Cross-bunns is said to owe its origin to the habit which once prevailed in England, of marking this cake, when baked on Good Friday, with the sacred symbol of the Cross.

Common bunns are made of a light, sweetened dough, risen by yeast and warm milk. After it is risen, a little melted butter and warm milk is added, the dough is dusted with flour, and allowed to rise for half an hour, when it is shaped into small cakes, put on to buttered tins, and allowed to rise for another half-hour. Glaze them with white of egg and put them into a quick oven. You may, if you please, stir well-cleaned Zante currants into the dough.

The following receipt is a very good one for making these cakes: —

Three quarters of a pound of flour, one quarter of a pound of butter, beaten to a light creamy consistency, one quarter of a pound of white sifted sugar, one half-pint of new milk, one wineglass of fresh yeast, three eggs beaten very lightly, one teaspoonful of powdered mace, cinnamon, and nutmeg

mixed together, one wineglass of brandy, wine, and rose-water stirred together.

Stir the spice into the butter, then add the flour and sugar, stirring them in alternately with the well-beaten eggs. Add the wineglass of brandy, wine, and rose-water, and lastly, stir in the half-pint of milk, to be followed immediately by the wineglass of fresh yeast. When risen, bake in buttered tins, moulding the dough into the bunn form, and glazing with sugar and white of egg.

BURNS. To keep the air from the burn or scald, cover immediately with cotton-batting, and then pour over the cotton sweet olive-oil. If the accident is serious, administer a gentle cathartic, and keep the diet low, unless there is weakness and sinking, when wine and a teaspoonful of tincture of Peruvian bark may be given from time to time.

Spirits of turpentine is sometimes applied, but it is too powerful a stimulant for most persons. I have known of flour being put over the skin of a child who had received a severe scald. It is light and excludes the air.

For cooling applications, pounded ice put in a flat bag of thin oil-silk or tied in a bladder, and lime-water mixed with the same quantity of linseed-oil, are exceedingly grateful, the latter being put on with a very soft sponge or linen rag, bathing the affected skin gently, without rubbing. Where the weight of it can be supported, a fine Indian-meal poultice can be made, with hyson tea thrown over it, pouring on hot water enough to moisten and soften the leaves. Renew the poultice when dry by a fresh one prepared in the same way.

Vinegar will sometimes relieve the pain of a burn, and a solution of sugar of lead applied with a soft sponge or rag to the injured parts is sometimes beneficial.

BUTTER. This substance is made by churning cream

alone, or by churning the milk and cream together. Taking it for granted that the milk-dishes are kept religiously clean, and scalded as soon as the milk is removed with boiling water, that the milk is taken from a healthy, well-fed cow, and is not impregnated with garlic or turnip flavor, we proceed at once to the operation of making butter.

Cream makes the richest butter, though of course the larger quantity is obtained when the milk is also used. Milk may be skimmed after standing undisturbed in the milk-room twenty-four, and in cool weather thirty hours. Put it in a stone vessel until a sufficient quantity of cream is collected to churn. Milk-pans should be of tin, the enamel of earthenware often containing poisonous matters, whose properties are disengaged by the acid of milk.

Many experiments have been instituted, particularly in England and Scotland, by both practical and learned societies and individuals, to demonstrate the desirable temperature of cream to bring butter of the best quality and greatest quantity. Accepting the results of these experiments, we find that butter produced from cream at a low temperature is superior both in quality and quantity; that, put into the churn at 52°, it may be raised to 60° before the operation is finished, but on no account can, with impunity, exceed 65°; and that 60° is the desirable mean, while if it be under 50° the labor will be increased without any proportional benefit being reaped.

When the butter has gathered, put it into cold water, and beat it with the hand or a wooden butter-spaddle until the buttermilk is entirely out, and the water freshly poured over comes off colorless. When the buttermilk is thus worked out, take half the salt you intend to use for your butter, and work it in with your hand, keeping your hand cool by dipping it in ice-water or very cold water. Salt should be thoroughly incorporated as soon as the butter is relieved of but-

2 leaves missing

termilk, and can be best worked in by the hand. Let it stand covered closely for twenty-four hours, then work in your ingredients for final seasoning. For many years I have used one ounce of the following mixture for every pound of butter, taking half of the salt out, and applying it as above. Two ounces of the purest salt (Bay salt is best), one ounce of loaf-sugar, a little less than three quarters of an ounce of saltpetre, pounded very fine, and worked in with the hand. Summer butter requires more salt than butter made late in autumn. The firkin in which butter is to be packed should be of sweet wood, or unglazed stone-ware may be used. Lay salt basted in thin muslin over the butter after it is packed down very hard.

I shall conclude my remarks on this important subject by quoting the following from Johnson's Farmer's Encyclopædia on the manner of making butter in Devonshire, England:—"In Devonshire the method of making is peculiar to the county. The milk is placed in tin or earthen pans (each holding about eleven or twelve quarts), and placed on an iron plate over a small furnace. The milk is not boiled, but heated until a thick scum arises to the surface; if, when a small portion of this is removed, bubbles appear, the milk is removed, and suffered to cool. The thick part is then taken off the surface, and this is the *clouted cream* of Devonshire, which is known all over England. By a gentle agitation this clouted cream is speedily converted into butter."

CABBAGE. This vegetable requires a great deal of washing and soaking, for in its close leaves are often concealed insects which have assumed the color of the leaves they feed on. Put salt in the water it is soaked in, and let the cabbage remain soaking some hours before cooking. When it goes into the pot, drain this water off, and fill up with fresh water in which is a little salt and a small piece of

Take the molasses up, and stir in the milk and eggs, and flour enough to make a thin batter, of the consistency of pound cake. Bake in tin pans immediately.

CALICO. Fast colors in calicoes are thickened with gum or calcined starch, while fugitive colors are thickened with gum tragacanth, which leaves the cloth in a softer state than gum Senegal, the goods being sometimes sent to market without being washed. (*Bigelow.*)

Calicoes, if possible, should only be washed on a dry day, and always by themselves, in suds prepared with ox-gall soap, or of hard soap, with a table-spoonful of ox-gall added. Soap should only be applied through the agency of the suds. Wash quickly from these prepared suds into another prepared in the same way, having both waters only milk-warm. Rinse out the soap in pure water, then quickly pass them into a second rinsing water, into which has been put a handful of salt, or, what is better, a few drops of oil of vitriol, to set and brighten the colors, and some weak starch-water; and if there is no blueing in the starch, pass the indigo-bag once or twice rapidly through the water. Do not allow them to remain in any of the waters. Wring them out, and hang them on the wrong side in a shady place. Calicoes should never be frozen; it injures their colors. Dry them in the house, if necessary, to avoid such an accident.

Water in which potatoes have been sliced and boiled is often strained and saved for the purpose of making suds for calicoes.

Rice-water, and wheat-bran water, strained from these substances, is often successfully used.

Dark and mourning calicoes are washed in the same manner, that is, with warm soap-suds and ox-gall; but the starch is prepared with colored water, sometimes with coffee, to avoid the whitened look that starch sometimes gives dark calicoes.

Alum in small quantities is sometimes put into rinsing-water where the colors of the calico are mostly green; where they are red, pink, and green, vinegar or pyroligneous acid may be used. Strong vinegar or too much oil of vitriol is injurious.

Ox-gall put into a bottle with a little salt, and closely covered, will keep several months.

Calicoes should be ironed the same day, if possible, that they are washed, to prevent the colors from running. Do not use a very hot iron, and press them as far as possible on the wrong side.

CAMPHORATED SPIRIT. Break gum camphor into bits, till you have half filled a bottle, then pour in alcohol. A few drops poured into a wineglass of water sometimes relieve faintness. If for external application, you may fill the bottle with the best olive-oil, or Jamaica rum or whiskey.

CANDLES. Home-made candles are composed of ox-tallow and mutton-suet, either employed separately, or in equal parts. Tallow being more fusible than wax or spermaceti, candles made of this material require larger sticks. The cotton wicking is purchased in large balls. It is well, in making candles, to boil in vinegar as much wicking as will be used, taking care to dry it thoroughly. It prevents the emission of odor while the candle is burning.

When the fat is rendered, strain it close to the fire, and pour it while it is hot into the moulds, which should be previously prepared, with wicking secured at one end with small wooden pegs, and at the other fastened with loops through which are slipped bits of coarse iron wire. The pegs should be, with the wicking, so placed as to prevent the escape of the grease. Have the wicks placed exactly in the centre of each tube, and fastened tightly on to the

wire. Put them out doors where they will cool and become firm. Do not pull them too early, and before attempting the drawing of them, dip the mould in warm water, and draw slowly. Put them in a cold place, and do not use them for some nights. They burn more economically if allowed to harden.

The shavings of spermaceti candles should be saved for the laundry; they give a polish to starch used for linen, and are nice to rub the iron over to prevent the starch from sticking.

Cut-glass candle-receivers, put on top of the candlestick for the candle to pass through, are pretty and useful articles, as they save wax from passing on to the furniture.

CARPETS. Where the figure of a carpet is small, the two webs of which it is composed are more closely interwoven; and besides, as a mere matter of taste, large figures are fast being resigned to steamboat upholstery. Colors are chosen with reference to their harmonious toning, to borrow an artist's phrase, with the rest of the furniture; thus, if the chairs, papering, and sofas of a room are green, it is desirable that the ground-work of the carpet should be of the same color, relieved by some small figure. White should be avoided, as it soon looks soiled.

Wilton carpets, though extremely elegant, are miserable to wear, a large part of the material following the broom on the first sweeping. Turkey carpets, which are made in one square piece without seam, are rarely used now in the United States. They are swept with little success, and are so heavy that it requires half a score of men to shake one.

The Tournay, Brussels, and Saxony, among expensive carpets, are the most useful.

The striped Venetian carpets (used almost entirely for stairs and halls), the Kidderminster, and Imperial carpets are double-sided, and may be put down either side up.

In making carpets, the strongest packthread is used, with stout carpet-needles. The two edges are brought together, so as to match the pattern, in every instance, exactly, and the stitches are taken on the wrong side. In some of the heavier carpets the stay-stitch is used, which consists in taking up one side at a time alternately, so that the seam may lie flat; and where both sides are taken at once, the needle is passed first toward the workwoman, and then pointed for the following stitch from her. If it gets fulled or puckered, it should be picked out and re-sewed. The selvages should only meet, and not be lapped, and the stitches should not be drawn tight.

Carpet binding is not so much used as formerly. The carpet now, after being stretched, is turned down and tacked with carpet tacks, with bits of soft leather attached to each tack.

Printed carpets, of woollen materials, are used chiefly for druggets, to save more expensive carpets, and for dining-rooms.

Oil-cloth carpets where they can be afforded, are exceedingly convenient for kitchen floors.

Carpets are best cleaned by being thoroughly shaken, the floors they were taken from washed very nicely, and when dry, the carpet returned to them, and then, after being tacked down and swept, to "make assurance double sure," scrubbed with a stiff brush and suds prepared with hard soap and ox-gall, renewing the suds frequently, rinsing in the same manner in clear water, in which has been dropped a little oil of vitriol to fix and brighten the colors, and lastly, wiped dry with clean towels. The windows of the rooms where carpets are so cleansed should be left open, till all dampness has left the apartments. This is a good time to rub the edges of the carpet with camphene, putting it on with a rag or sponge; the odor soon escapes, and the eggs of moths are effectually killed by the process.

The great objection to American carpeting is, that the colors are not fast; otherwise, they wear well.

CARROTS. This root, (the especial ally of the dairy,) when prepared for the table, is washed, scraped, and boiled in salt and water till tender. They should be cut in narrow strips lengthwise. They are nice, browned in butter or sweet fat, and thus sometimes garnish beef-stews. Boiled plain, they are served with boiled meats. A carrot cooked inside of a duck will mitigate the fishy, oily taste that is often over-strong in wild sea-ducks. The carrot is always removed before the dish goes to table.

CARVING. The principal points in carving are to serve all as nearly as possible alike, — in order to do this, one must know the delicate *morceaux* of every dish, — and to leave the dish, especially if it be a large roasting-piece, so that its reappearance may be respectable.

It is a great assistance to the carver to have the meat or fowls properly prepared and trussed. The bones of the loin of mutton should always be neatly sawed, if not by the butcher, then by the cook's meat-handsaw. She should do as much for the breasts of mutton and veal, and ribs of lamb.

In carving the sirloin of beef, give each person a bit of fat, and throw over the joint, and cut off a piece of the tender-loin, and put a little gravy from the dish on the whole. A sirloin is cut at either end, or in the middle.

Boiled beef and hams, and cold meats generally, are to be cut very thin, and the outside piece of boiled salted meats is laid aside.

Roast stuffed veal is cut in thin horizontal slices, and each guest served to stuffing, gravy, and a bit of boiled ham.

In carving roasted breast of veal, if a bone is liked, give with it a piece of the breast, and a bit of sweet-bread.

Mutton and pork are cut thicker than other meats. A leg of mutton is generally brought toward the carver, by taking the fork in the left hand, and putting a prong through the knuckle bone, and cutting slices upward.

A goose is carved in long thin breast slices, taking in as much as possible the length of the fowl. Many persons have a little wine gravy poured hot over the slices before they are served. Where the goose is stuffed, help to a bit of the stuffing also. After the slices are off, proceed to disjoint the members, and cut the thigh, which is a delicate bit, from the leg, and the fleshy part from the wings. Unless the party is large, the breast-slices will meet demands. The choice bits of fowls, whether boiled or roasted, are the side-bones, the slices from the breast, wish-bone or merry-thought, the wings, and, of a fat, tender-boiled fowl, the thighs.

The delicate task of separating joints is best learned by practice, and by putting one's self under the guidance of friends whose taste and judgment may be relied upon. In large dinner-parties, the lady or gentleman is now-a-days mostly relieved from the laborious duty of carving by the waiter, who, after the dishes have been placed on the table, removes them to the side-table.

In helping to salmon, give a slice of the thick, and one of the thinner part of the fish, covering with the sauce provided, whether this be caper, egg, or anchovy. Have slices of lemon in a plate by themselves.

CASHMERE. The finest shawls of this name are those from the looms of Cashmere, and they are made of the fine down of the goats that live on the table-land of Thibet. When not in use, these shawls, like the camel's-hair shawls, should be wrapped in linen, with camphor sprinkled in the folds, and kept in a cool, dark closet, or in camphor or cedar trunks.

CATCHUP. The most indispensable of these preparations are Mushroom, Walnut, and Tomato Catchup.

Mushrooms should only be gathered by some one acquainted with this peculiar family. The wholesome ones have a pleasant odor, a round form, tender edge and middle, and when young a salmon color on the under part, which, as they mature, turns to a dark brown, the upper part and stalk being of a pearlish white. But as sad accidents often occur from the use of poisonous mushrooms, no one should attempt to gather this edible fungus without competent knowledge. One fact with regard to the mushroom is, that the wholesome kinds grow openly in pastures, and those that are found in woods and damp swampy places are not good.

It is said that poisonous mushrooms turn silver black, and onions that are boiled with them. Another test is to sprinkle a little salt on the inner spongy side, and examine them a little while after; if the action of the salt has imparted a yellow color, they are to be rejected; but if black, they are wholesome.

Mushroom Catchup.

Gather the large, juicy, flap-mushrooms, that are too ripe for pickling or stewing. Remove all decayed matter and foreign substances, and put the mushrooms into an earthern jar, with a little salt sprinkled over each layer. Cover and leave them near the fire for twenty-four hours. Strain off the liquor into a porcelain-lined kettle, or clean saucepan. Let it boil over a good fire for half an hour, than add to every quart of liquor two teaspoonfuls of black peppercorns, one teaspoonful of allspice, three small slices of fresh ginger, a few blades of mace, three or four cloves, and a sprinkle of Cayenne pepper. Let it simmer till reduced one half. Take it off and cover it. When sufficiently cool, fill small glass bottles quite full. Dip off the liquid without disturbing the

sediment, which can be saved for soups, or fish-sauces, or put into a linen bag for the top of the pickle-pot. Cork closely with fresh cork-wood, and lay the bottles on their sides in a dry, cool closet.

Tomato Catchup.

Take a peck of tomatoes that are fully ripe, on a dry day in August, or early in September. Pick the stems from them, and wipe with a clean towel dipped in warm water. Put them into the kettle with salt between each layer, but without water. As they boil, skim and stir them frequently for an hour, strain them through a colander, then through a coarse sieve. To the strained liquid, put six or seven small chopped onions, one or two blades of mace, a table-spoonful of whole black pepper. Boil it an hour and a half, adding, if necessary, a little more salt. Fill, when cool, small bottles quite full, and cork closely.

If tomato catchup is preferred thinner, you may slice your tomatoes, and squeeze them through a linen bag, and pound your spices. Take one or two onions to a peck of tomatoes, chopping the onions very fine, and add a very little Cayenne. Keep the bottles on their sides in a cool closet.

Walnut Catchup.

Gather the walnuts while they are green and tender enough to be pierced with a coarse needle. Probe them with a bodkin, or crush them with a wooden mallet, and put them into a pan and cover them with a pickle made of a little soft water and a handful of table-salt. Let them remain four or five days, mashing and turning them every day with a wooden spoon. Have ready on the fifth day a liquid composed of soft pure water and mild vinegar, bring it to boiling heat, and to every dozen walnuts pour a quart

of this boiling liquid. Mash the walnuts, and take the liquor off with a wooden spoon, and press the rinds in a bag. Boil the walnut liquor gently for an hour, skimming it well. Take it off, and to each quart of liquor put an ounce of pounded allspice and black pepper mixed, a teaspoonful of pounded cloves, and the same of mace, and the grate of one nutmeg. Put the liquor to the fire, cover closely, and let it boil three quarters of an hour, when bottle as directed above.

CAULIFLOWER. These delicate vegetables, before being cooked, should have the coarse outside leaves removed, as also the coarser part of the stalk. Put them in a pan of cold water, sprinkling salt over them to draw out all insects, and allow them to remain soaking some hours. Examine them well. Boil them in a steamer with milk and water, putting in the large heads some minutes before the small ones. Boil them slowly for twenty minutes, or till tender, but do not allow them to break to pieces. Do not keep the cover close. Eat them with fresh butter and salt, or you may rub a little flour into three large spoonfuls of good butter, melt it slowly, and pour it (after the cauliflowers have been well drained from moisture) over the vegetables just before you send them to the table.

Broccoli may be prepared in the same way.

CAYENNE. This is made from the East and West Indian Capsicums, which with care are easily grown in almost all the States. When the pods are quite ripe and red, slit them open, and sift a little dried flour over them. Dry them on tin sheets in an oven. When dry, pound them in a stone mortar with a little flour till perfectly powdered.

Chillies or Guinea peppers are sometimes used for Cayenne. This pepper is often dangerously adulterated with red-lead, and other vile compounds.

CELERY. This vegetable, beside its uses as an accompaniment to white fowls and for salads, is often dressed as asparagus, boiled, cut into pieces of six or seven inches, and served on buttered toast. It is also cut in small pieces and stewed in butter, and a little pepper and salt added, and cream sauce poured over it just before it is sent to the table. Celery and celery seed make a nice flavoring for light soups.

CEMENTS. The substances which form the uniting medium between bricks and stones in building are called cements. The best calcareous cements are those which are equally mixed, and of good consistence, and are manufactured of pure lime, freed from carbonic acid by recent slacking, and sand which is fresh (as salt is apt to deliquesce, and weaken the strength of the cement), and whose angles are sharp, not worn by the action of tides and water.

The proportion of sand and lime is different in various cements, but that of sand always exceeds the lime, and the more sand the lime can receive, and retain at the same time the required plasticity, the better for the cement, as it solidifies sooner, when the well worked and beaten lime and water is subdivided, and well taken up with clean sharp sand. The purer the lime, and the more it is worked and beaten, the greater its capacity for receiving sand.

Common mortar is made of pure lime, in the state of fine powder, good sand free from clay, and a little pure water. It is customary to have the sand partly coarse, and the usual proportions are three parts of fine and four parts of coarser sand, and one part of quicklime, recently slacked with pure water, to reduce the whole to a thick paste.

Water, hydraulic, or Roman cements are those which resist the action of water, hardening under it, and solidify very soon after being mixed. They are formed of various substances.

The artificial quays and islands built by the Romans for the purpose of erecting villas in the Bay of Baiæ, a spot of fashionable resort for the wealthy, were constructed of a peculiar earth, called by the Romans *pulvis puteolanus*, and now known under the name of *Puzzolana*. It is a porous, friable mineral, of volcanic origin and various color. On being reduced to a powder, and incorporated thoroughly with lime, either with or without sand, it forms a mass of firm, solid substance, that, not only in the air, but immersed in water, concretes to stony hardness.

Cements are also formed of other substances. Some of the ores of manganese form water cements; and baked clay reduced to powder, and the common greenstone calcined and pulverized, make with lime tolerable hydraulic cements.

Some limestones, when calcined and mixed with simple sand and water, form water cements, and usually in consequence of these stones containing a certain portion of argillaceous earth united with lime.

Various parts of the United States afford very good hydraulic cements.

Different theories have been broached to account for substances hardening under water; the most probable appears to be, that the attraction for water in certain argillaceous earths causes them to quickly absorb the superabundance of moisture from the lime, and thus hasten its solidification; which explanation receives collateral aid in the fact, that burnt clays, which, properly managed, afford hydraulic cements, cease to do so if the burning has been continued till vitrification has ensued. (Bigelow's Useful Arts.)

Common Cement for Broken Vessels.

Put to half a pint of boiling milk the same quantity of vinegar. Take out the curd, and when the whey is only milk-warm beat into it the whites of five fresh eggs. Beat

it thoroughly, and sift into this mixture enough quicklime to make a stiff paste. If the materials are good, and well incorporated, the above is a cheap and useful cement.

Cement for Bottles.

Mix equal portions of pounded resin and beeswax, and add one fourth of their weight of mutton or beef suet. Let it melt slowly over the fire, and stir in brick-dust, Spanish whiting, or some basis that has the desired color. Put it warm over the bottles or jars to be sealed; or well-corked bottles may be dipped in the cement.

Cements are frequently made of resin, beeswax, and the powdered substance of a like nature with the article to be repaired. Pound the resin, and stir it into the melted wax, and then make the whole of proper consistency with powdered alabaster or glass or china, as the case in hand may require.

CHARCOAL. This substance, as observed when speaking of antiseptics, is often placed around meat and game to keep them from taint. Water filtered through coarse sand and a bed of charcoal is often relieved of deleterious substances.

Charcoal is almost indispensable in igniting anthracite coal, when used in parlor-grates. It is also useful in small portable furnaces for preserving; but when these are used, there should be a current of fresh air to carry off the fumes of the charcoal, which, as is well known, are fatal to human life.

Vessels and tubs in which meats, and substances whose absorbed juices might induce putrefaction, are kept, are often charred by burning shavings in them, the charcoal thus induced keeping them sweet.

CHARLOTTE DE RUSSE. One pint of sweet cream, the yolks of eight eggs, one pound of loaf-sugar sifted fine, and one pint of unskimmed milk.

Boil the milk with a vanilla bean or a few pounded bitter almonds. Take it off, and strain it; when cool, stir in the cream and the eggs, both of which should be well beaten. Put the whole over the fire, and stir it till thick; and have ready a jelly made of an ounce of the best isinglass, or Cox's sparkling gelatine, or the same quantity made from calves' feet. When the custard and jelly are both cool, but not hard, mix them together. Have a fresh sponge or almond cake baked in an oval tin mould, from which cut out very neatly the centre, leaving the bottom and sides on to the depth of an inch; fill up with the prepared custard, and set the ice over. The whites of the eggs may be used for an icing to the top of the cake.

Charlotte Russe is frequently made by placing ladies' fingers or Savoy biscuits in a mould close together at the bottom and sides, and filling up the mould with custard and isinglass jelly, and setting it on ice till turned out for the table. You may place the cakes so as to form a rosette.

CHEESE. The quality and flavor of cheese depend upon the richness of the milk and the amount of cream used in the manufacture of it. Cheese of a good quality melts at a moderate heat, while poor cheese, being deficient in the oil of cream, dries and curls up.

A Parmesan cheese is made from the milk of not less than fifty cows, and as one farm rarely contains pasture for such a number, the farmers or *metayers* of a district club together.

Stilton cheese is the cream cheese of England. Cream cheese is not subjected to such heavy pressure as milk cheese, but, when the curd has set, is placed in a sieve to

drain slowly, and, after being gently pressed, is put into a wooden hoop, and afterwards dried on boards with cloth binders, which are tightened as the cheese hardens. Cream cheese requires frequent turning.

Some dairywomen mix the cream of one milking, with the rennet, into the new milk they are to make their cheese from.

The best season for cheese-making is while the cows are feeding on pasture, winter cheese being of an inferior quality, and made with more difficulty than during warm weather.

Annotto is used for coloring cheese, particularly in England. (See *Annotto.*) Mr. Coleman attributed the poor reputation our cheese enjoyed abroad to its sharp, acid taste, its deficiency in rich color, and its lacking a firm rind. As these defects may originate partly from the preparation of the rennet and the manner of salting, I have taken great pains to consult some of the best English authorities, and to examine personally into the management of dairies at home. Among others, I am indebted to Professor Low's Elements of Agriculture and Johnson's Farmer's Encyclopædia, books which I heartily wish were in the hands of every farmer in the United States; for though all matters discussed in them are not applicable to this country, they are full of general agricultural knowledge.

The utensils required for making cheese are a large tub, in which the milk is coagulated, and the curd broken; the cheese-knife or wooden spatula with one or more blades for cutting the curd to facilitate the separation of the whey; wooden spoons for taking off the whey; sieves, or another wooden vessel perforated with holes, for further expressing the whey; small circular vats, in which the cheese is placed to be compressed; and, finally, the cheese-press. This last is made from different models, and acts upon the curd by the

continued pressure of a weight. The rennet, which is used to coagulate the milk, is the fourth stomach of a calf. When no rennet is found of sufficient strength to curdle the milk, various plants have been used for the purpose; in England the Yellow Ladies' Bedstraw (*Galium verum*) has been substituted, and in Spain the Cardoon (*Cynara cardunculus*). A strong infusion is made in the evening of the down of the Cardoon, and in the morning it is ready for use. Half a pint of the infusion is sufficient to produce coagulation in fourteen gallons of new milk.

The substance of the rennet is increased by feeding the calf largely with milk some hours before slaughtering. In taking the stomach from the newly killed calf, only foreign substances should be removed; the chyme and coagulated milk, of which it chiefly consists, should be undisturbed. A few handfuls of salt are to be put into the stomach and all around it, and then, after being rolled up, it should be hung near the fire to dry; and if hung up a year or more before it is used, its quality is improved. It is the gastric juice of this rennet which produces coagulation.

Says Professor Low: "When the rennet is prepared for use, it is cut into small pieces, and put into a jar with a handful or two of salt. Water which has been previously boiled and cooled again is then poured upon it, and allowed to remain for two or three days. It is then drawn off, and sometimes a second infusion is made, but with a smaller quantity of water; this also remains a few days, and being withdrawn, the two liquors are mixed together, strained through a cloth, and put into bottles, to be used when required. The quantity of this rennet to be used is to be regulated by the strength of the infusion; it should be only enough to have the milk curdled in an hour. If a sufficient quantity of new milk is procured at one milking to make a cheese, it is used as soon as it can be strained; but if not

enough to make a cheese, it is put into milk-vessels till enough is obtained. When the cheese is to be made, the cream is skimmed off, and part of the milk is taken and heated over the fire to that degree, that, on being returned to the mass, will raise it to about 90°. The cream which was removed is either thoroughly mixed with the heated milk, or it is added to the general mass, after the heated milk has been returned. While yet warm, a quantity of rennet is mixed with it, and coagulation soon takes place. The curd being formed, it is cut with a wooden spoon, or cheese-knife, to allow the whey to escape, and the curd is subjected to gentle pressure, while the whey is removed with a wooden spoon. It is now lifted by one of the mentioned articles (spatula or spoon) into a sieve, or vat with holes, where it is repeatedly cut, pressed by the hand, and broken, until it no longer gives out any serous matter. Finally, after being cut very small by the cheese-knife, and a quantity of salt, in the proportion of about half an ounce to a pound of cheese, being mixed with it, it is wrapped in a piece of cloth, put into a small wooden vessel, with circular holes at the side and bottom, and placed in the cheese-press; but frequently the salt is not applied until the cheese has been compressed."

The time which is allowed for the cheese to remain in press, is regulated by the richness of the cheese, and the amount of previous manipulation which has been bestowed, very rich cheese requiring comparatively but little pressure.

"But," says Professor Low, "in ordinary cases, the cheese, being wrapped in a cloth, and put into its vat, with a board above it to fit the vat, remains in the press from one to two hours. It is then taken out, wrapped in fresh cloth, and replaced in the cheese-vat; and then the salt, if it has not been previously applied, is rubbed over the surface. It may then be taken out every five or six hours, the cloth being changed, and the salting repeated. After being pressed

in this manner for two or three days, the operation will be complete. The cheese may then be kept in a warm place for some time to dry, and ultimately placed in the store-room for preservation."

In some of the English districts, the dairy-women, on taking the cheese out of the press, put it in a vessel with hot whey, where it remains an hour or two to harden the rind, when it is wiped dry, cooled, and returned to the vat, which has been previously wiped dry, to be pressed again. If the cheese has been made in the morning, which is the usual time, it is again taken out of the vat, and a fresh dry cloth is wrapped around it, and the cheese is turned and replaced; what was formerly the upper becoming now the under side. For two days it is turned in the vat, and put into clean cloths twice each day, when it is finally removed. The salting is now undertaken. The cheese is carried to the salting-house and placed in the vat in a tub, which is partly filled with brine. Here the cheese remains for several days, being regularly turned at least once every day. The vat is then removed and the cheese placed on the salting-bench, where it remains for eight or ten days, salt being daily rubbed over the whole cheese. If the cheese is of large size, it is common to secure it with a wooden hoop or fillet of cloth, to prevent cracks and rents. When supposed to be sufficiently salted, it is washed in warm water or whey, and, when well dried with a cloth, put on the drying-bench, where it remains a week or ten days before it is finally deposited in the cheese-chamber.

The management of this cheese-room is regulated by the weather and the judgment of the dairy-woman. If the air be moist and close, fresh air is admitted, but if cold and dry, the room is kept closed. In about ten days, or according to the space of time between the washings, the cheeses are cleaned by being washed and scraped.

A decoction of saffron is sometimes put into milk to give cheese a little color; it is used in the Parmesan cheese.

The mould or vat in which cheese is formed is made of thick staves, generally of white or American oak, and secured with two strong iron hoops, to withstand the necessary pressure. It is perforated with many small holes in the bottom and sides, to let the whey escape from the curd. This vat is sometimes called chessel.

Cheese-cloths should be strong, and of open texture; every time they are removed from the vat, they should be wrung out of boiling water, and dried in the sun or before the fire; if this is not done, it is sufficient cause for inducing "a sharp acid taste" in cheese.

CHERRY (*Cerasus vulgaris*). The Cherry is of Asiatic origin; the Roman Lucullus, returning from Pontus after a victorious campaign, brought it from Cerasus, a town in that province, in the year 69 B. C.

It is a tree of rapid growth, and the varieties of the Black and Heart-shaped Cherries grow to forty or fifty feet in height; the Acid or Red Cherry does not spread so vigorously, but is of slower growth, lower, and more bushy in its developments.

It is a strange fact, that we have not cultivated our native Cherries to any great extent, but have directly imported the rich Cherries of France, England, and Holland, which seem not altogether suited to our climate, for they decay at the season of ripening, and those which reach maturity lose their fine fleshy firmness a few hours after being plucked.

The wild Virginia Cherry yields a wood hardly inferior to mahogany, and I have seen bedsteads of elegant polish and color made from this material.

Though the Cherry will grow in almost any soil, that which is deep and mellow, but not damp, is the best suited to it;

in wet positions it soon grows sickly and decays. To protect it from spring frosts, it is well to plant it in places where premature budding will not be induced, on the north sides of hills, or elevated, cool locations, rather than deep, warm valleys. The finest varieties are obtained by budding on seedlings of the common Mazard Cherry. (See *Budding.*) As a standard tree, which is the usual mode of cultivating the Cherry in the United States, this tree requires but little cultivation, beyond an occasional administering of manure to old trees, and a very little pruning in midsummer where a dead or cross-branch interferes with the general health of the tree, and an occasional washing with soft-soap suds, where the bark shows a tendency to become hard. Pruning is very apt to induce gum and decay, and should be undertaken only when absolutely necessary.

Mr. Downing has divided Cherries into four classes, viz.:—

1. Heart Cherries; the common Mazard and Black being taken as types of this division.

2. Bigarrean Cherries. Those which are tender and *crackling*, as compared with the melting, tender flesh of the first class.

3. Duke Cherries. The May Duke is the type of this class. These are excellent varieties, succeeding well in almost all soils and climates, and invaluable both for the dessert and for cooking.

4. Morello Cherries. The common Kentish or Pie Cherry, and the Morello, are well known varieties of this class.

Where cherries are used for dessert, they should be put into a refrigerator or ice-house, or placed in a vessel which should be immersed in cold water, that the fruit may retain firmness, and be cold.

The gum of the Cherry is said to have been instrumental in saving a besieged army cut off from supplies. Its properties resemble those of gum-arabic.

Some of the most celebrated cordials and *liqueurs* of Europe are made from the Cherry. Common Cherry Cordial is made in the same manner as Raspberry Cordial. (See *Cordials.*)

The *Kirschwasser* of Germany is the distilled liquor of the common Black Mazard or Jean, the stones being ground, broken, and fermented with the pulp. *Ratifia* cordial of Grenoble is prepared from this fruit.

Maraschino, the far-famed liquor of Italy, is distilled from a small Jean or Mazzard, to which is added, in the process of fermentation, honey, the leaves, and kernels of the fruit.

Dried Cherries.

Stone the fruit. Morello, Kentish, or Early Richmond are nice for this purpose. Sprinkle a little powdered sugar over them, and spread them on flat dishes for the night. In the morning pour off very gently what sirup may have been made, and weigh the fruit. Make a rich sirup, taking for a pound of fruit the same weight of sugar, wetting the sugar with the cherry juice, and water enough merely to dissolve it. Let it come to a boil, when put the fruit in and scald it, dip it out gently, and allow the sirup to boil for fifteen minutes, skimming constantly all the time. Spread the cherries in tin pans, and place them in a very moderate oven; add the sirup to them gradually, and keep turning them till dry, for several days. Put them, when cool, in glass jars, and cover closely.

CHICKEN. It is well to allow chickens to hang a day or two before cooking them, else they are apt to be tough and stringy; but they should be drawn on being killed, the flavor of undrawn birds being admired only by the few. Avoid breaking the gall-bladder, and singe them without breaking the skin or discoloring them. Do not wash them till just before they are to be cooked.

Spring chickens are roasted like fowls. Twenty minutes will roast a chicken. See *Fowls*.

Capons are roasted and boiled in the same manner as turkeys; they are best when nine or ten months old; when older they may be stewed with butter and vegetables, and eaten with tongue, or boiled for broth or sauces.

Boiled Chicken.

Put chickens on in plenty of water, from which the chill has been taken. Chickens with a white skin are nicest for boiling; before going on, let them be nicely trussed, putting the gizzards and livers under the wings. Have ready a small bit of salt pork which has been boiling three quarters of an hour; put it in with the chickens. Boil the chickens very slowly for about ten minutes, but keep them covered in hot water for about half an hour. Before you send them to the table, drain them near the fire. Serve with egg-sauce, and garnish with sprigs of parsley.

The water in which chickens are boiled can be used for soup, by adding vegetables and straining.

Curried Chicken.

Disjoint the chicken and cut the breast up. Chop a small onion, and put it into a saucepan with a piece of butter as large as a table-spoonful. Stir them well, sift in two tea-spoonfuls of curry-powder and add a few spoonfuls of broth. Lay in the chickens; when it boils, cover it, and allow it to stew very gently for half an hour; if it gets dry, add a little cream, broth, or water. Season with salt. Boil some rice in another saucepan, and serve it in a separate dish.

Fricassee of Chickens.

Cut up a chicken into seven or eight handsome pieces, and put them in a stewpan, with the gizzard and liver, and cover

with water a little warm; throw in a salt-spoonful of salt, a little pepper, one or two cloves, and a blade of mace; boil till tender. Take out the pieces and strain the liquor, thicken a piece of butter with a little flour, stir it into the liquor with a few onions chopped very fine. Put the liquor over the fire with the chicken, let it simmer, skimming it for twenty minutes. Stir into a teacup of cream the yolks of two eggs. Pile the chicken up on a dish, stir rapidly the cream into the stock in the sauce, let it heat, but not boil, and pour it hot over the dish of chicken.

CHICCORY, OR SUCCORY (*Cichorium Intybus*). The wild Endive. The cultivated variety is somewhat used in England as a forage plant, but it is said to impart a bad taste to the milk. The root, which contains a bitter, is substituted occasionally for hops in brewing beer. In Europe the dried root is roasted and used instead of coffee, and the excise laws of England allow it to be mixed with coffee. In an exceedingly clever article in a recent London Quarterly, (Food and its Adulteration,) chiccory is spoken of as an insipid root containing neither nourishing nor refreshing qualities, and possessing no nitrogenized principle, while strong doubts seem to be entertained whether it is not positively injurious to the nervous system. The same Reviewer remarks that Professor Beer, a celebrated oculist of Vienna, forbids the use of it to his patients, considering it to be the cause of amaurotic blindness.

CHILBLAINS. Oil-skin socks, worn night and day, are often of great service in this exceedingly troublesome complaint. If the skin has not broken, various embrocations may be used with advantage. Spirits of turpentine, or equal parts of vinegar and spirits of wine, or diluted muriatic acid, may be applied; but if the skin is exceedingly sensitive and

broken, mild poultices must be served. If fungous granulations appear, they may be touched with some mild caustic.

Carefully avoid going near the fire or furnace, as great heat causes the weak vessels to distend, and sometimes leads to ulceration.

CHOCOLATE. A preparation made of the seeds or nuts of the cocoa-tree. (*Worcester.*) These preparations are varied by French and Italian flavorings.

Common chocolate comes usually in small squares of the weight of an ounce. In preparing the beverage, you scrape or grate the chocolate with a common grater kept for the purpose. Put the scraped chocolate over the fire in a saucepan, with cold water, regulating the quantity of water by the strength you wish the infusion to have. If you wish it rich, put to two squares or ounces a gill of water. Stir it slowly with a wooden spoon, until it thickens, when it should be stirred quickly, and a pint of boiling milk added, a little at a time. Chocolate should be served hot. Sugar may be put in on the table.

Chocolate after the Italian method is made in a chocolate-pot of peculiar construction, which contains a utensil which answers the purpose of a wooden spatula, and the handle of which passes up through the lid. Put into the pot two ounces of scraped chocolate, and pour over it, gradually, a pint of boiling milk, fasten the lid on with the wooden dasher enclosed, and agitate the handle constantly, that the chocolate, when hot, may present a frothy appearance.

French chocolate frequently comes flavored with vanilla, and sweetened. It is less oily than common chocolate. If it comes as a powder, dissolve it gradually in boiled milk, and serve hot. A teaspoonful and a half of powdered chocolate is the French recipe.

Cocoa is imported in bags. The nut is roasted or dried in

a moderate oven, and cracked in a mortar. It requires to be well boiled, allowing a pint of water to each ounce of cocoa. Pour off the liquid, and stir into it boiling milk.

Cracked cocoa is simply the shell and nut together, and is prepared as the above. Baker's prepared cocoa is much approved.

Shells of cocoa are soaked, and then boiled in the same water. They require to be well boiled. Put a large gill to a quart of water; after being soaked over night, and thoroughly boiled, strain off the liquor, and put milk to it and heat it again.

CHOWDER. Cut a quarter of a pound of fat salt-pork into slices, and try it out in the pot you make the chowder in. Take a haddock that has been nicely cleaned, and cut it across into bits about an inch and a half wide. Take out the rashers of pork and put in a layer of fish, pepper it well, and dust in flour on it, then another layer of fish, seasoning it in the same manner. Pour over cold water till the fish is a little more than covered. Put it on to boil. Shred an onion or two very fine, and throw it into the pot. Ten minutes before you take it up, put in half a bottle of claret or port wine, and let it boil up. Try a little in a cup, and if not of the consistency of cream, mix a little flour in a cup with water, and pour it in. Dip in cold water half a dozen crackers, split them, and five minutes before you serve the chowder, put them into the pot. About half an hour after it begins to boil, the chowder will be cooked. Serve in a deep dish, garnishing the sides with the brown rashers of pork.

COCA (*Erythroxylon coca*). A pernicious narcotic of Peru. The dried leaf is chewed, but the forlorn victim who is its slave is punished with terrible imaginations, often fancying himself guilty of frightful crimes.

COCHINEAL (*Coccus Cacti*). Dried insects brought originally from Mexico. But the production of this insect is being largely extended. They feed upon the leaves of several species of cactus, and are thought to owe their coloring matter to this food. The most beautiful of all the reds, carmine, is derived from this insect. Though the natural color of cochineal is crimson, yet on dissolving it in water, and adding bitartrate of potassa, it yields a rich scarlet dye.

Cochineal, according to Pelletier and Caventon, is composed of, — 1. Carminium, which is the name given to the coloring matter. 2. A peculiar animal matter. 3. A fatty substance. 4. Salts of lime and potassa.

The preparation of the finest varieties of carmine is kept secret by the manufacturers, but is supposed to depend much upon the delicacy of the manipulations. The ordinary process is to dissolve it in water, to which alum, carbonate of soda, or oxide of tin is added.

A pound of cochineal is composed of about 70,000 insects. (*Bigelow.*)

COFFEE (*Coffea Arabica*). The coffee-plant, of Oriental origin, being a native of Abyssinia and the adjoining countries, is now grown very extensively in the West Indies, and in South America. But the Mocha and Java Government are regarded as the best varieties.

The coffee-bean, though introduced from Abyssinia into Arabia as late as the beginning of the fifteenth century, and England's first coffee-house being opened no earlier than 1652, is computed to be consumed, at the present time, at the rate of six hundred millions of pounds annually, among one hundred millions of people. Coffee, like tea, is the better for being old. The principle in coffee, known under the name of caffeine, is mellowed by age. Coffee, drunk at full strength, is

an antidote for an over-dose of laudanum. Roasted coffee is said to be a great purifier of the atmosphere.

Coffee should be roasted equally, and of rich dark brown color, stirring it constantly with a wooden spatula. On being ground, that which is not infused should be kept closely covered in a tin pail that fits neatly.

M. Soyer's manner of making coffee is to stir the grounds in a stewpan till quite hot, when to two ounces of coffee he pours over a pint of boiling water; then he covers it closely with a cloth for five minutes, after which he passes it through a cloth, then warms again, and serves hot. I have tried this method and found it excellent; but to servants, and for daily practice, it cannot be recommended.

French breakfast coffee has an equal portion of boiling milk added to the made and drawn-off coffee, which should be warmed together and served hot.

The following is a good way of preparing coffee: —

Put in your coffee-pot three ounces of ground coffee, with a bit of fish-skin that has been previously washed (it need not be larger than a cent), or a little egg may be used (one egg should last three mornings); pour over it a quart of boiling water. Let it boil not longer than five minutes, then take it off to settle, and clear the spout of the coffee-pot by pouring out a little coffee and returning it; then put in a spoonful or two of cold water to facilitate the settling.

The same coffee-grounds can have another quart of boiling water poured on them, and be boiled five minutes, and yield a very good beverage.

CORDIALS. These drinks are made from cherries, peaches, strawberries, raspberries, blackberries, apricots, etc.

Strawberry Cordial.

Let the fruit be fair and perfectly ripe, and to every

quart of fruit, sift over a pound of the purest loaf-sugar. Let it stand twenty-four hours in a deep pan, when strain the liquor from the fruit, and to every large spoonful of juice put a table-spoonful of purest brandy. Put it in small bottles in a cool place.

Raspberry Cordial.

Squeeze your raspberries through a flannel bag, and to every quart of juice add one pound of loaf-sugar. Put it with the sugar into a stone jar, and stir it together frequently the first day, then allow it to stand for three days, when strain through a sieve. To each quart of juice thus prepared, add one quart of brandy. Bottle for use.

Peach Cordial.

Take peaches that are juicy and perfectly ripe. Slice them, crack the stones, and put the kernels in. Add a pound of loaf-sugar to a pound of fruit. Set it near the fire, and dip off the juice from time to time, pressing it towards the last with a spoon. When the juice is entirely expressed, put it in a preserving-kettle, let it come to a boil, and skim it thoroughly. Let it cool, and then add a quart of brandy to each quart of peach sirup.

(See *Blackberry*.)

CORN, INDIAN (*Zea Mays*). Green corn should be put into boiling water, and cooked about twenty minutes; if boiled too long, it becomes hard.

But dishes made of Indian meal can scarcely be cooked too much. Mush requires two hours of steady boiling, and puddings made of corn-meal require, whether boiled or baked, five or six hours of cooking.

Corn, if ground too fine, is flat and insipid. Exported corn should be kiln-dried.

Hominy is mostly prepared from the white corn of the South; when coarse it is merely hulled and crushed, but fine hominy is ground.

Succotash consists of beans boiled till tender, and mixed with boiled corn cut from the cob. Season with fresh butter and salt.

Paul Stillman's Corn Bread.

Mix with four cups of corn meal one cup of wheat flour; put in a cup of hot water one teaspoonful of carbonate of soda, or by weight one drachm, with which thoroughly wet the meal; two or three eggs are an improvement; then mix in a little water one half of the same measure, or an equal weight, of muriatic acid, and stir it thoroughly with the mass. Spread in a tin pie-pan, and bake immediately in a quick oven. In this recipe, observes Mr. Stillman, the carbonate of soda and muriatic acid combine, and, forming muriate of soda (common salt), give out carbonic-acid gas to inflate or raise the bread. The salt formed in raising the bread is no more than should be used were it added before its combination, and entirely avoids the common objection, where saleratus is used, of having potash in the bread.

CRANBERRY. This useful berry is, among condiments, the very sheet-anchor of the New England housewife.

The wild Cranberry of New England (*Oxycoccus macrocarpus*) is larger and finer than the European Cranberry (*O. pulastris*), and it is largely exported.

It grows mostly in mossy wet land, yet beds are easily prepared in moist or peaty soils, and if thoroughly decayed manure is added, the berries will be larger and finer than the wild ones. Mr. Downing has said, that a square of the size of twenty feet, planted in this way, will yield three or four bushels annually, — quite sufficient for a family. Plants taken

up like squares of sod or turf, and planted two or three feet apart, quickly cover beds. Land otherwise useless is often drained and turned to profitable account, by cultivating this fruit; and as its value increases yearly, it cannot otherwise than repay the little trouble of making beds. The best cranberries sell some seasons at twelve dollars a barrel.

Cranberries are sometimes kept in cold water. They may be frozen without injury, but should not be exposed to extremes of heat and cold.

Cranberry Sauce.

Having picked and washed your cranberries, put them into a kettle with a little water. Simmer them gently for half an hour. Stir in powdered sugar and let it simmer twenty minutes, stirring it frequently. When cool, pour it into an earthen jar, and cover.

Cranberry-Sauce Jelly.

Add to two quarts of picked cranberries one quart of pounded loaf-sugar, and one half-pint of water; let it boil three quarters of an hour. Dip it off into moulds.

CREAMS. Creams may be put into moulds and frozen, or they may be frozen like ice-cream, or served plain in a large glass dish. If moulded, a little dissolved isinglass is added to the ingredients, but only for shapes, as egg eats better. Creams made too rich will not freeze; if deficient in richness, they will not set in a firm mass.

Creams differ chiefly in the flavoring ingredients, which may be of chocolate, lemon, vanilla, almond, pistachio, or other matters, fruit jellies often being used.

Creams poured over some light cakes, placed in a glass dish, and set on ice till eaten, make a delicate dessert dish.

Vanilla Cream.

Put a vanilla bean into a pint of rich milk, and let it boil till thoroughly flavored. In another saucepan put the yolks of six well-beaten eggs, to which has been added, gradually, six large table-spoonfuls of sifted loaf-sugar. Beat it well. Take the bean from the milk, which strain into a pint of fresh cream. Warm the egg over the fire, stirring constantly, and not allowing it to boil; but when a little thick, take it off, strain it through a coarse silk sieve, and stir it rapidly into the cream and milk. Pour it into a large glass dish, or into cups or glasses. See *Almond Cream.*

CROQUETTES. These cakes may be made of the remains of white fowl, veal sweetbread, delicate fish, rice, or macaroni.

Meat Croquettes.

Chop the lean parts of the fowl or veal, and moisten them with butter and flour mixed smoothly, and a little onion, chopped very fine; put the whole with a little pepper and salt in a stewpan over the fire. If not suffciently moist, add a little boiled cream or white broth, or sauce that may have been left from the meal before. Stir it well, and as it begins to warm, stir in rapidly the yolks of two or three eggs. Let it remain about three minutes longer, stirring it all the time, when take it out and let it cool. Divide it into pieces, which roll out into small bolster forms, and rub each piece into grated bread. Fry them a bright brown color, and drain them well. Serve them hot.

Croquettes of Rice.

Put two large cups of well-washed rice into boiling milk, a little more than enough to cover the rice. Let it simmer slowly until tender, when add a small piece of fresh butter,

some sugar which, previous to pounding, has been rubbed with the rind of a lemon, and the yolks of five eggs. Let it thicken, but do not allow it to boil. Stir it well together. Take it off, and when cool roll it into small bolster forms. Dip each one into some well-beaten egg, and fry them in a rice-basket of open wire-work, which should be placed in a stewpan. Fry them a very light brown, drain them, and sift white sugar over them. Put them on a white napkin in sending them to the table.

CUCUMBER (*Cucumis sativus*). This cooling vegetable, though well known to the Romans, was regarded in England no longer ago than during the reign of Charles II. as little less than poisonous. Since then French genius has cultivated it into thousand shapes; but as it requires French practice to stuff and stew cucumbers, we forbear giving receipts for this mode of serving.

When sliced, they should be soaked some time before dinner in plenty of cold water; then drained, and seasoned with salt, pepper, and vinegar. Set the dish into a larger one, containing bits of ice. See *Pickles*.

CURRANTS. Red and White (*Ribes rubrum*). Black Currants (*R. nigrum*). The Currant is a native of Britain and the North of Europe, and consequently hardy. It is the practice now to grow this fruit in the tree form. Plant slips or cuttings (never suckers), in the autumn or early spring, in such parts of the garden as will most facilitate their rooting. In order to ward against suckers being produced, cut off the eyes or buds of the cutting as far up as you intend shall be buried in the soil.

When the plants are transplanted to their final resting-place, care should be taken to train them from one main stem, and every winter superfluous wood should be thinned

out. Where large fruit is coveted, nip off the growing shoots in the middle of June, when the fruit is about half grown, and the vigor of the plant spends itself on the growing fruit. Plants six or eight years old should be removed for younger ones.

The present splendid garden sorts of Currants come from Holland, and the Red and White Dutch varieties have thrown out of esteem the common garden sorts, wherever the first can be obtained.

Black Currants (*R. nigrum*).

The Black Naples is much superior to the common English Black Currant. It has the peculiarity of blossoming earlier than the common kinds, while it produces its fruit later.

Ornamental Varieties.

The Missouri Currant (*Ribes aureum*), with yellow fragrant blossoms, is a well-known variety, and owes its present cultivation to Captains Lewis and Clarke, who, in May, 1804, were sent by Congress to explore the regions of the Rocky Mountains, and to discover the source of the Oregon River. It has a variety called the Large-Fruited Missouri Currant.

The Red Flowering Currant (*R. sanguineum*) bears clusters of light-crimson blossoms in early spring. The flowers are large and showy, but this Currant is not hardy enough to survive New England winters. It will not thrive north of New York. It has several varieties which display white and pale pink flowers.

Though I have spoken of the tree-training for this fruit, I must not omit to remark that many excellent cultivators prefer the bush form. Among others, we have the authority of Mr. S. W. Cole (American Fruit Book) against tree-training, and my own experience coincides with his.

Currant Wine.

Pick your fruit on a dry day, and make your wine on the same day you gather it. Take the currants from the stems, bruise and press them, and strain the juice from them. To every gallon of currant juice add two gallons of pure soft water, and three pounds of the best loaf-sugar. Mix well till the sugar is dissolved. Put the whole into a keg, and let it ferment twelve or fourteen days, covering the bung-hole with coarse muslin. The keg or cask should be filled so that impurities may escape at the bung. At the expiration of the twelfth or fourteenth day, beat up the whites of five or six eggs, and stir them into the cask. Put in the bung lightly at first, a little firmer on the second day, and on the third, secure it well, and cover with bottle cement. Let it stand five or six months, when rack it off, and, if not perfectly clear, it may be refined with isinglass, milk, or the addition of more white of egg. See *Jellies*.

CURRY. This powder is dealt in largely commercially, but it is frequently shamefully adulterated by the mixture of red-lead, and other substances, if not as poisonous, equally uncalled for. Besides, the packages which are purchased are not suitable for all dishes. From these considerations many persons buy the different substances which make curry-powder, dry and powder them, and, keeping them carefully from the air, mix them as they need the curry, and in such proportions as the dish may require.

The principal ingredients in this powder are turmeric, ginger, cayenne, mustard, and pepper, softened by some aromatic spice; cinnamon, coriander, and cardamon seed being generally used. Turmeric is disagreeable to many persons; it is the root of the *Curcuma longa*, a native of the East Indies.

Curry-powder, where it is mixed in any quantity to keep, is usually in the following proportions: — To an ounce each of black pepper, mustard, and ginger, one half-ounce only of cayenne, and three ounces of turmeric, with a quarter of an ounce of cinnamon and a quarter of an ounce of cumin, three ounces of coriander seed, and half an ounce of cardamon seed. Each ingredient should be thoroughly dried, reduced to a powder, carefully sifted, well mixed, and closely stoppered in a clean bottle and kept in a dry place.

CUSTARD. Break off about an inch and a half from a vanilla bean, put it in a quart of milk, and let it boil in a porcelain-lined kettle, or in a tin pudding-pail set into hot water. Take it off and remove the bit of bean. When the milk has cooled, stir in ten well-beaten eggs, and one even cup of loaf-sugar. Strain the whole through a coarse sieve, and pour it into a tin pudding-pail, which set into a pot of boiling water, and let it boil for fifteen minutes. Take it out in china cups and grate nutmeg over each cup, or, if you please, mount them with whipped cream.

If you boil the milk in a porcelain-lined kettle, cover it when you put it over the fire, and have the kettle well rubbed before putting the milk in, as milk is, without care, very easily scorched and burnt.

CUTLERY. Steel should be kept as dry as possible, yet dry furnace-heat often splits the handles.

To remove rust, rub the knives well with mutton-suet or fowl's grease, and let it remain a day or two, when rub dry with unslacked lime finely powdered, or with emery, applied either with a cork or soft wood.

Clean cutlery with powdered Bristol brick on a board, rubbing with a cork wet occasionally in a vessel of soft water. Wipe dry with wash-leather, and clear with a clean knife-cloth.

Wash knives in warm, but not hot suds, and if a knife-washer is not used, have the knives placed in a mug, not deep enough to reach the handles. Servants will be careless about these matters.

Covering with caoutchouc-varnish has been tested as a protection for polished steel, but it is too expensive for common purposes. Knives that are not in common use may be heated and rubbed with mutton-suet or fowl's grease, heated again, and, while hot, rubbed with white wax, and polished with soft leather, wrapped separately in brown paper, and put away in a dry place.

CIMLINS. Gather these summer squashes while they are tender enough readily to yield to the pressure of the nail. Peel, and having divided them, and taken out the seed, boil them rapidly till tender. Drain them well, and with a wooden spoon pass them through a colander. Put the pulp into a stewpan with a piece of butter, a gill of cream, a little white pepper and salt. Stir constantly till the squash is dry. Serve in a hot dish.

DAIRY-COW. The domestic Ox (*Bos taurus*) has been so long a servant to man, that from what parent stock he has been derived is mere matter of conjecture. Like the dog, he adapts himself to all circumstances. "Where food is scanty," says Professor Low, "he scarcely exceeds the dimensions of the deer; but where it is abundant, he reaches to enormous size. He is found from the equator almost to the limits of vegetable life, and is everywhere subservient to the wants and convenience of the human race."

The breeds of British cattle are very numerous, Great Britain, as the author above quoted remarks, being remarkable for the excellence and number of her sheep and oxen, and owing no little part of her opulence to this cause.

The breed most cultivated for the dairy in the British Islands is the Ayrshire Breed, derived from the county of Ayr, but found in many of the dairy districts of Scotland and of Ireland. "As now cultivated and improved," says Professor Low, "it is well defined in its characters. The individuals are of medium size, of various colors, and have short horns. Their limbs are delicate, their foreheads narrow, their shoulders thin, and their fore-quarters light. This is a form which is valued in the female, as indicating a disposition to secrete milk; but it does not correspond with the form of an animal which indicates a tendency to grow to great size, and fatten readily." These cows do not enjoy in the richest dairy districts of England all the reputation they possess in their own country; but the breed has been much improved within the last fifty years.

The Short-horned Durham Breed has been extensively imported into the United States; it is considered as combining a larger number of valuable properties than any of the large breeds.

The Alderney Breed have short crumpled horns, are of small size, and ungraceful forms. They are from the Norman Islands of the British Channel. The Island of Jersey has the palm for the superiority of her race. The inhabitants, whose riches they are, guard the purity of the breed by interdicting the importation of foreign animals. These animals are not strong, and require a temperate climate; but the milk of the female is excellent in color and quality. Professor Low says of this breed: "Considerable numbers of the cows are imported into the southern counties of England, where they are kept for the luxury of the opulent, or partially employed in the regular dairies, to give richness to the milk."

The North Devon Breed of England are admirable for active labor, and the milk of the female is rich, and under favorable circumstances abundant.

Cows require a high, well-ventilated stable, clean litter, good water, daily currying, and to be foddered three times every day while enclosed.

In winter, when they are stalled, the food of cows should be as varied as possible. Ruta-bagas and turnips may be mixed with potatoes, parsnips with pumpkins and squashes, cabbages with corn-meal; indeed, both cabbages and turnips should be qualified with potatoes or meal, as they otherwise impart an ill flavor or watery properties to milk. Vegetables should always be cut, and a part of their food during the winter should be boiled or steamed, and have occasionally about two ounces of salt mixed with it. Sweet apples boiled in water, and mixed with coarse bran or Indian meal, may be given, where apples are plenty, with advantage. Carrots give the finest color and flavor to milk, and consequently to butter.

After the cow has eaten her carrots or turnips, or whatever fodder she may have given her, a little oat-straw or hay should be thrown into her crib. This should be done after each meal. Keep the stable scrupulously clean.

The cow carries her young about forty weeks. The calf is quietly removed on being born, before the cow recognizes her, as separation always distresses her. The cow is then milked, and some meal-gruel given her. The first milk of the cow is fit only for the stomach of the calf.

If you wish to economize your milk, and the calf is intended for veal, the usual practice is to allow her but one teat (if the cow is a generous milker) for the first few days, and to give the calf meal and porridge. Still it is poor economy to stint the calf, and she should be fed three times a day regularly, and at the same hours. When the calf is four weeks old, she requires almost all the cow's milk, or the last drawn from several cows. A little chalk is sometimes given to them in their cribs, and about half an ounce

of salt is also daily administered. Calves are considered good veal in five, six, and ten weeks. Calves require a good deal of attention. The straw under their feet should be often replaced by fresh litter, they should be kept perfectly dry, and fresh air should circulate in the stable where they are confined.

Corn-stalks, husks of bean, and dry pea-pods, and similar matters that are dry, clean, and not too harsh, should be husbanded for littering stables.

Cow's teats should be frequently sponged in warm soft water, and if in spring they become hard, rub them with goose-fat, as this grease has the property of resisting evaporation for a long time. Melt, or *render* it, as you do mutton-suet or lard, and keep it in a jar covered with bladder. (Low's Elements of Agriculture. Stephens's Book of the Farm.)

DIARRHŒA. If the complaint is obstinate, dissolve in a teacup of vinegar as much salt as you can. Take one table-spoonful of this vinegar so prepared, and pour on it one cup of boiling water. Drink one table-spoonful of this every two hours; if the disease is mild, however, three times a day will be sufficient. Two spoonfuls, following the directions exactly, may be taken at a dose, where the complaint is violent. Follow the directions carefully. See *Blackberry Cordial.*

DUCKS. See Fowls.

DYES. Dyeing substances have been classed by Dr. Bancroft into substantive colors, which unite readily with the material to be dyed, and adjective colors, which require a third agent that must have an affinity for both color and stuff to be dyed. These agents which thus fix the color are called mor-

dants. It is frequently difficult to say which is the color and which the mordant.

Among substances employed as mordants are included numerous oxides and salts; the principal are the *acetate of alumina*, the *sulphate or acetate of iron*, and the *muriate of tin*. The material to be dyed is first impregnated with the mordant, before being dipped in the solution of the coloring-matter. Mordants, besides fixing the color, often brighten the tint.

Substances used for dyeing are exceedingly numerous; the mineral, animal, and vegetable kingdoms all pay tribute to this exquisite art.

Blue Dyes.

The Indigo of commerce is the chief blue dye. The best kind is the *Indigofera tinctoria*. The green parts of the plant are cut before flowering, put into large vats with water, when fermentation takes place, and the indigo settles into powdery, pulpy matter; its color is at first green, but by exposure to air it absorbs oxygen, and assumes a blue color. This plant is cultivated only in warm climates.

Indigo is also found in Woad, *Isatis tinctoria*, and some other vegetables. Woad, before the introduction of *Indigofera*, was very extensively cultivated in the North of Europe. The coloring-matter of this plant also is obtained from the leaves; the processes for obtaining it are generally less artificial than those used for the indigo-plant.

Indigo is capable of distillation or sublimation by a moderate heat, and, on being burnt, emits a fine purple smoke. Indigo is insoluble in water and alcohol, and alkalies have only partial effect on it; it is rendered soluble by being put into the dyer's vat with various deoxidizing agents, where, after the fermentation has continued some time, the surface of the liquor will be blue, and that not offered to the atmos-

phere green; but substances dipped into this deoxidized indigo, though at first they show a green color, become blue when exposed to the air.

Indigo, it is well known, may be dissolved in sulphuric acid without changing color. Blues dyed with this solution are known as Saxon-blues; they are less permanent than those derived from the green liquor.

Indigo requires no mordant or basis to assist its combination with cloth.

In calico-printing, indigo is ground with some deoxidizing agent, wet with starch or gum to proper consistency, and applied to the blocks which form the pattern; the calico then receives alternate baths of lime-water and a solution of sulphate of iron, until the indigo is sufficiently dissolved to give a fixed color.

Red Dyes.

Most of the substances used as red dyes require mordants before they can be fixed on cloth. Logwood, safflower, archil, Brazil-wood, cochineal, and madder, are substances largely employed for red dyes, and are all adjective colors.

Logwood is the wood of the *Hæmatoxylon Campeachianum*, which is found in Tropical America. A decoction of logwood yields a fine red, with a violet or purple tint, which, if not arrested by some agent, becomes in time yellowish, and finally subsides into black. The violet color may be fixed by alum, and a blue may be obtained by verdigris. But it is for blacks that logwood is principally valued; it imparts to them great softness and depth of tone.

Safflower is obtained from the leaves of the *Carthamus tinctorius*. The coloring matter has little permanency. It is familiarly known as a pink dye, spread on saucers. "The fine rose-color of safflower," says Dr. Bancroft, "extracted by crystallized soda, and precipitated by citric acid, and then slowly dried in the shade, being afterwards finely ground

with the purest talc, produces the beautiful paint by which ladies give to their cheeks the bloom of youth and health, and which the French distinguish from carmine by the name of *rouge végétale.*"

The dye from safflower is of two kinds, yellow and red; the first is separated by maceration in running water, the remaining is the exquisite red, the *rouge végétale.* The plant is cultivated in various parts of Europe, but it is principally from Egypt and the Levant that the commercial supplies are realized. The flowers of this plant are not the only useful part of it; while they assist the dyer and painter, the seeds contain an oil used alike in medicine and painting. Safflower is sometimes called Bastard Saffron.

Archil is a dye obtained from the *Lichen roccella*, found chiefly in the Canary Islands. The Dutch *litmus* or *turnsol*, a blue pigment, is made of the red coloring substance of this lichen and an alkali; on the application of an acid, the coloring matter is disengaged, and the red tint is restored. Litmus is thus used as a dye, and employed by the chemist to test the presence of a free acid.

Brazil-wood is the heart of the *Cæsalpinia echinata*, a tree of Brazil. It yields, with solutions of alumina and tin, brilliant red tints, which, however, are deficient in durability. Acids turn the infusion yellow before the application of alum, which, added, brings it red again, affording a precipitate which is employed as an inferior sort of carmine; the addition of an alkali facilitates the precipitation.

Cochineal has already been mentioned. Red morocco owes its exquisite color to the dye obtained from cochineal, though a similar color was formerly produced in Southern Europe and Asia by the use of Kermes, a dye derived from the insect *Coccus ilicis*, and also from lac, a gum which exudes from the *Ficus Indica* and other trees. Goat-skins form the basis of red morocco.

In 1630 it was discovered in Holland that the oxide of tin had the power of exalting the scarlet color of cochineal, and soon after one of the celebrated MM. Gobelins, at Paris, availed themselves of the discovery in their famed tapestries. The nitrate or nitromuriate of tin produces the natural color of cochineal-crimson, which is changed to scarlet by the tartar employed in the process. Cochineal is soluble in water, and is fixed on cloth by means of alumina or the oxide of tin.

Madder, the root of the *Rubia tinctorum*, is one of the most valuable drugs used for dyeing. The plant is much cultivated in Europe, and particularly in Holland. It tinges with red the bones of the animals that feed on it. Madder produces, by the medium of different mordants, every shade of red, purple, and black.

Smyrna Madder is the root of the *Rubia peregrina*, and the dye obtained from it is principally used for dyeing the Turkey red on cotton, with the adjuncts of oil, galls, alum, and some blood (which appears to exalt the color), and substances which, in passing through the alimentary canal of sheep, have imbibed and retained some of the gastric fluids; the manufacture of Turkey cotton being a complicated process.

Yellow Dyes.

The yellow dyes in most common use are the quercitron-bark, weld, fustic, saffron, turmeric, and hickory.

Quercitron-bark, the most valuable of the yellow dyes, was discovered by Dr. Bancroft, to whom the English government, with its accustomed liberality, granted the right of disposal for a number of years. This dye is an extract from the bark of the *Quercus tinctoria*, or common black oak of the United States. Like most of the yellow dyes, it is an adjective color. With a basis of alumina, the decoction presents a bright yellow dye; with the oxide of tin, a

variety of tints is afforded, from a pale lemon to deep orange. The oxide of iron gives a drab color.

Weld, *Reseda Luteola*, is of the Resedaceæ or Mignonette family. It is the most easy of cultivation of any of the dye-plants. It is generally biennial, and pulled up in the second year of its growth, while in flower, before it goes to seed. The roots are dried by being set upright four together. When they are dry, which will be in about a week, they are put into larger bundles for sale. When stacked in the dry state, it will keep for years; but when extracted from the stalk, it should be used, as it soon ferments and becomes worthless.

Fustic is the wood of a tree native to the West Indies, the *Morus tinctoria*. It affords, with alum, a less bright, but more permanent, yellow than the preceding yellow dyes. It assists also in producing green and drab colors.

Saffron Crocus (*Crocus sativus*) is a plant cultivated from bulbs. The dye produced is from the stigma and style of the plant. The yellow dye is very fugitive; by the addition of sulphuric acid, a blue is obtained, and then lilac, and on the application of nitric acid it assumes a green tint.

Turmeric is the root already mentioned in the article Curry. It is a native of the East Indies, the *Curcuma longa*. Curcuma paper is that which is stained with a decoction of the dye, and is used by chemists to detect a free alkali, the presence of which it betrays by a brown stain.

A yellow dye is obtained from several species of American Walnut or Hickory, particularly from the *Juglans* or *Carya alba*, the bark, leaves, and rinds all yielding a dye similar to Quercitron, but less in quantity.

Annotto, *Bixa Orellana*, a shrub of Tropical America, has already been mentioned.

French berries, *Rhamnus tinctoria*, yield a lively but fugitive yellow.

Black Dyes.

These are of the same ingredients as writing-ink; the black dye, therefore, usually contains oxide of iron, tannin, and gallic acid; logwood and the acetate of copper imparting, when added, a blue shade. As the immediate application of the black dye would, through quantity, be apt to injure the cloth, the best black woollen cloths are first dyed red with madder, and blue with indigo. Frequently ordinary woollens receive for the first dye logwood only, with a salt of copper; but a black is obtained which always turns brown and rusty-colored in wear.

Black silks have generally a decoction of galls applied first; the galls, being more attracted by the silks than the iron, are therefore the true mordant. After this the silk is subjected to alternate baths of sulphate of iron and a decoction of logwood, repeated till a deep black appears. Cotton has usually the iron applied first.

Black vats, with iron and various vegetable matters, are frequently kept for an immense length of time unemptied, as it is believed they improve by age.

The Red maple (*Acer rubrum*) of the United States, applied with the sulphate or acetate of iron, gives, as discovered by Dr. Bancroft, a more perfect black than any of the common vegetable dyes. With alum it yields a permanent cinnamon-color, both upon cotton and wool. The bark and leaves are both used.

The common Nutgall, as is well known, is an excrescence produced by the puncture of an insect, a species of cynips, upon an Asiatic species of oak (*Quercus infectoria*). Besides tannin and gallic acid, Dr. Bancroft has detected a coloring matter. With an aluminous basis, galls yield a fawn or light cinnamon color.

The bark of Butternut (*Juglans cathartica*) gives to cot-

ton, with an aluminous basis, a permanent brown, and communicates the same to wool, without any mordant.

"By the dexterous combination of the four leading colors," says Dr. Bigelow in his Useful Arts, "blue, red, yellow, and black, all other shades of color may be produced. Thus green is communicated by forming a blue ground with indigo, and then adding a yellow by means of quercitron-bark. One of the latest improvements in the art of dyeing consists in the employment of colors derived from the mineral kingdom. Prussian blue, orpiment, chromate of lead, and other mineral compounds, have, by appropriate processes, been made to communicate their colors to different stuffs. An abstract of the processes is given in Ure's Notes to Berthollet on Dyeing."

See Bancroft on Permanent Color; Professor Low's Elements of Agriculture, Art. Plants cultivated for Dyes; Bigelow's Useful Arts; and an interesting article in Quarterly Review (English), entitled Dr. Bancroft on Permanent Colors, Art. XIV., 1814.

EGGS. Various ways are recommended for preserving eggs. One way is to pack them in a keg, and then pour over them lime-water, which should be prepared thus: — Take a gallon of soft water, throw in a handful of clean salt, and a quart-bowlful of unslacked lime; when it is cold, pour it carefully over the packed eggs.

Eggs may also be rubbed with fresh butter, or dipped in liquid mutton-suet or beef-suet. In either case they are no longer capable of being hatched. Where a few only are to be preserved, they may be smeared with some sweet butter or fat, hung in a net, and daily turned upside down.

Three minutes is the usual rule for boiling eggs of the average size. Eggs should not be cooked till eight or ten

hours after being laid, as previous to this time the white of the egg presents a thin, milky appearance on being boiled.

Dropped Egg.

Have the water boiling, drop the egg in without breaking the yolk; have ready slices of buttered toast, and when the egg has set, remove it with the egg-slice to the top of the toast, taking care again not to break the yolk. This is the lightest form of cooking eggs, and therefore best suited to invalids.

Omelettes.

These preparations, to be successful, require practice, and an omelette or small frying-pan.

Break five eggs in a dish, season with a little salt, a dust of pepper, half a tea-spoonful of boiled chopped parsley, the same quantity of young onion, also chopped very fine, and beat all well together.

Melt in the frying-pan two ounces of butter, and pour the egg in. Stir it, but when it shows signs of hardening, begin to shape it with the spoon, and by tipping the pan up so that the egg may occupy only a small part of the pan. When a very delicate brown is supposed to be attained, turn it upon a dish, with the browned side top. Omelettes should not be overdone. They may be varied to almost any amount. Delicate vegetables, such as boiled cauliflower, or herbs, or boiled chopped ham, may be beaten into the egg. Omelettes should be served hot.

Poached Egg.

Beat six eggs well, put them in a stewpan with about three ounces of butter. Stir them constantly for three minutes. Serve on hot buttered toast.

EGG-PLANT (*Solanum Melongena*). Of this delicate plant there are two varieties, the white and purple. The

last is for the table, the white being more ornamental, but rarely used.

Select young fruit that has just reached maturity. Parboil them, and drain off the water. When cool, slice them about an inch thick, and fry them in batter made of egg, milk, and flour, or dip each slice in egg, and then in grated bread-crumbs that are seasoned with salt and pepper. Fry them a delicate brown. They are much used at the South, where they are thought to resemble soft crabs in taste.

EIDER-DOWN. The down of the Eider-duck, called also the Gothland duck. This duck is found principally in Iceland, in the Hebrides, Shetland, and Orkney Islands, though it is found as far south as the Farne Isles off the coast of Northumberland, and in the rocky islets beyond Portland in America. The down, so highly esteemed for bed-quilts, is collected from the nests of the birds. When the nest is stripped for the first time, the female again supplies it from her breast; but a second robbery brings the male to her rescue, who then furnishes the nest with down from his breast.

FAT. According as this part of animal flesh differs in different animals, its name varies; in the horse and bear it is called grease, in the ox and sheep, tallow, fat, suet; and in the hog, hog's lard.

The characters which indicate a disposition in the ox and other domesticated animals to secrete fat, are fineness of the bones, the largeness of the body as compared with the smallness of the extremities, — limbs, head, and neck, — the broadness of the chest, the roundness of the body, and the soft, elastic touch of the skin. This form is not the same that is looked for in the female ox as showing a disposition to secrete milk, where, as it has been remarked, the limbs should

be delicate, the forehead narrow, the shoulders thin, and the fore-quarters light. (Low's Elements of Agriculture.)

FIG. The fig is one of the oldest fruits known. In the United States it is generally cultivated in the shrub form, so that it can be easily protected during the winter. It is propagated by cuttings, which are taken off early in the spring, and planted in the light soil of a hot-bed. On being removed, they should be placed in a mellow, calcareous soil, and the compost should be corrected with marl or mild lime; they may be transplanted the same season. Mr. Downing recommends root-pruning for the fig as cultivated in the United States. "Short-jointed wood, and only moderate vigor of growth, are," he remarks, "well-known accompaniments of fruitfulness in this tree; and there is no means by which firm, well-ripened, short-jointed wood is so easily obtained, as by an annual pruning of the roots, — cutting off all that project more than half the length of the branches." Root-pruning on the fig is performed early in November.

In foreign culture the fig is frequently subjected, while the fruit is maturing, to a singular custom. To assist it in ripening the fruit, it is punctured before it reaches maturity with a hollow straw that has been dipped in olive-oil, a single drop of oil being passed near the eye into each fig. Mr. Downing observed the custom so far as to touch the ends of the fig with the finger dipped in oil, and thought the fruit ripened more speedily and swelled to a larger size for the practice.

South of Virginia the fig needs no covering of soil, or straw, or branches of evergreens, during the winter, but grows easily as a standard tree.

Where figs are not perfectly fresh, they may be put into an oven of very moderate heat, and plumped, and then rubbed with a coarse towel.

FISH. The Pythagoreans are said to have abstained from fish, out of respect to their taciturnity. Moderns, however, with an inquisitiveness that annihilates reverence, have found out that some, if not all fish, have a weakness for colors; that perch can be decoyed into drum-nets by daffodils, or any bright-yellow flowers. It is also said, that by rubbing your hands with assafœtida, fish will allow themselves to be taken from the water, as readily as by the exquisite artificial flies of the hook-and-line fisherman.

All Greeks not having equal forbearance with the followers of Pythagoras, we find the Thunny, which is to the South of Europe what the Mackerel is to the North, in great favor as an article of food among the early Greeks.

From the Romans, the famous pickle, Garum or Garus, has come down to us; it derived its name from a crustaceous animal so called, from which it was sometimes made; but Pliny says a fish called *Scomber*, which some think may have been our mackerel, was also employed to make this pickle, and remarks further, that Apicius used the liver of the mullet for this purpose.

The classification of fish according to some natural and clearly defined orders has been acknowledged by the acutest intellects to be extremely difficult; for the successful performance of the task, the great Cuvier found himself not prepared, and it is to our illustrious citizen, M. Agassiz, that this extensive branch of natural history owes a debt, which should be discharged in the immediate gratitude of the present generation, and the accumulated admiration of succeeding ones. Long as America can appreciate genius may such names be gathered under her stars and stripes.

Fishes are naturally long-lived. Their age has been demonstrated by fastening a ring, with the date inscribed, to the gill-covers. One of the most celebrated fish-stories is that of the pike of Frederic the Second. This monarch had a

ring so fastened to a pike, with the date, 1487, and the king's order, appended, and the fish thrown into his pond, near his castle of Kaiserslautern. The pike was taken in 1754, when it had consequently attained the age of two hundred and sixty-seven years. It weighed three hundred and fifty pounds, and was nineteen feet long.

The senses of smell and hearing have no external avenue in fishes, but the former is said to be the most acute of all their senses. In their natural element their motions exceed in swiftness and duration the flight of birds, the shark being swifter and more untiring than the eagle, and the herring and salmon more rapid than the swallow. Generally the eye of the fish is unprotected with eyelids, being made to resist the water, as the terrestrial animal is to live in air.

I shall proceed to give a short account of some of the most important edible fish. By a benevolent Providence those classes which constitute the most wholesome food for man are the most numerous.

The Herring lives in the Arctic seas of Europe, Asia, and America, migrating southward, at different seasons of the year, in vast shoals, to obtain food and deposit their spawn. These shoals, which are led by the largest and strongest, and divided into bands as they proceed, which visit different islands and countries, are followed by larger fish, which devour them, and by flocks of gulls and marine birds, whose noise and numbers announce the approach of the fish. These migrations are said to take place at three different times. The first, when the ice begins to melt, to the end of June; then comes the summer migration; the autumn one follows, lasting till the midst of September. They deposit their spawn where stones and marine plants are found. The millions of these fish that are annually taken by English, Dutch, and American seamen, by the Norwegians and other European nations, are hardly to be computed. Against

these annual drains, and the constant attacks of larger fish, is provided the fecundity of the herring, the spawn of each female containing from thirty to forty thousand eggs.

Who first salted herrings cannot be decided, some authorities giving the honor of the invention to William Deukelzoon, a fisherman of Dutch Flanders, who lived in the end of the fourteenth century, others bestowing it upon William Benckels or Benkelings of Biervliet, over whose grave the Emperor Charles the Fifth is reported to have eaten a herring, in token of his appreciation of the importance of the invention. The smoking of herring was first undertaken at Dieppe in Normandy.

Hardly less valuable is the Codfish. It is found between the fortieth and sixtieth degrees of north latitude, both in the Atlantic and Pacific Oceans, making its home on the great shallows and sand-banks, of which the most celebrated is the great bank of Newfoundland. Towards the end of winter or the beginning of spring, the codfish seeks the coast to deposit its spawn. The codfish, with fewer enemies, is still more productive than the herring, more than nine millions of eggs having been discovered in a codfish of the middle size.

The Haddock belongs to the codfish genus. This fish assembles in vast shoals during the winter months, in every part of the Northern Ocean, forming banks sometimes twenty-four miles long by three broad, and bending their course generally southward, proceeding beyond the limits of the cod and the herring; but it has been remarked that they neither enter the Baltic nor the Mediterranean.

The Hake is also an inferior species of the codfish genus; it is known also under the name of Stock-fish, and "Poor John."

The Mackerel is another tribe of migratory fish. It frequents the Arctic, Antarctic, and Mediterranean Seas, as well as the

Atlantic Ocean, hybernating in the first-mentioned seas, selecting depths that are land-locked and calm as sheltered pools. The depth of these retreats lessens in proportion as they are near the shore, and the bottom is generally muddy and covered with marine plants. Into these muddy bottoms the mackerel inserts its head and the anterior part of its body, keeping its tail elevated vertically above it. In the spring they come forth from their winter quarters in infinite numbers, and proceed southward to more genial seas to deposit their eggs. The mackerel dies as soon as it leaves the water, and then emits a phosphoric light. The fecundity of this fish is also great, more than half a million of eggs being deposited by each female. Though the mackerel is mostly used fresh, it is yet often pickled for winter use.

The Salmon, by universal consent, is called the king of fishes. This noble fish confines himself to no narrow limits, but is found in every sea, the arctic as well as the equatorial; in great lakes and inland seas, as the Caspian, into which it is believed to find its passage by a subterranean channel, from the Persian Gulf. It travels as far south as New Holland and the Australian seas; but it is said never to frequent the Mediterranean. In temperate climates the salmon quit the sea early in spring, rushing into rivers freest from ice, or where they are borne by the highest tide, favored by the wind, but preferring rivers and streams that are most shaded. They go out of the sea in numerous bands, formed with singular regularity, being preceded generally by the largest individual, which is usually a female. This leader is followed by others of the same sex, two and two, each pair having the space of from three to six feet intervening between them; these are followed by the old, who are succeeded by the young males, both preserving the same order.

The salmon genus contains species which are intermediate between marine and fresh-water fishes, swimming alike in

the sea, rivers, and lakes. Among these are the well-known Salmon-trout, the Trout, the Smelt, and many others.

Besides these valuable fishes, we have in New England the Halibut. It is a sea-fish, and is in our markets from February to July. It is very nicely cured by Marblehead fishermen. Sea-bass and Tautog are favorites, but not always to be had. Shad are taken in South Carolina as early as January, in Virginia a month or two later, in New York in April, and come into the Connecticut and Merrimack rivers in May. The Shad is indifferent eating, unless it is large and fat. Sturgeon and Rock-fish are favorite dishes in Virginia.

The Sturgeon is a large cartilaginous fish, related to the shark. There are two species of this fish, the Sturgeon and the Huso. The latter is much longer than the sturgeon, and has been known to weigh 2,800 pounds, and to be nearly forty feet long. The huso is found only in the Caspian and Black Seas, and the Don, the Volga, and other rivers that flow into them. It is more numerous than the sturgeon. The Caviar, which is so much valued by the Russians, Turks, and Greeks, is made from the roe of the huso, which constitutes nearly a third of the whole fish, and, as may be seen, indicates almost incredible fecundity. The huso fishery is important, also, from the isinglass that is made from the air-vessel of this fish. The common sturgeon furnishes the same article, as also do other fishes. (Kirby on Habits and Instincts of Animals. Quarterly Review. Tract on British Fisheries.)

Cold-blooded animals are said not to suffer from dismemberment like animals of a higher and warmer temperament. It is comfortable to know this when one reads the various receipts for preparing fish for the table. Nevertheless Monsieur Ude's manner of destroying eels can hardly be recommended, though warmly and cleverly defended by himself.

He says, "Take live eels, throw them into the fire, and as they are twisting about on all sides, lay hold of them with a towel in your hand, and skin them." Life ceases when the back part of the skull, the seat of the spinal marrow, is pierced.

Though most fishes die soon after leaving the water, and exhibit little muscular irritability after death, yet those genera which make an approach to a ganglionic system, such as the carp and cod kind, generally are found to be partial exceptions to these laws. Fishmongers have availed themselves of these deviations to introduce the fashion of crimping, or stimulating the fish into motion by transverse incisions. The vitality of the carp is very great; they may be placed in nets, and kept and fed thus for a long time in a damp cellar, and the heart of a carp has been known to leap about four hours after dismemberment from the body.

Herring are seldom cured in a private family, but persons living near the sea-shore may easily take the pickle left from their winter stock of meat, and throw the herring in alive. They should remain at least twenty-four hours, and then be packed in a close barrel or half-barrel, with a layer of salt at the bottom and between each successive layer of fish, and an occasional sprinkling of saltpetre. Be liberal with the salt. If they do not make brine enough, pour pickle over them in a few weeks after they are packed. If not kept covered with brine, they will become rusty.

In cooking them, take them from the brine, and let them soak for an hour or two, take them from the water, scale them, and pull off the gills, when the entrails will follow. Wash them and let them dry. They will require but a few minutes to broil.

The legal measure for fish is for each tierce to contain three hundred pounds; each barrel, two hundred pounds; each half-barrel, one hundred pounds; each quarter-barrel,

fifty pounds; and each tenth or kid, twenty pounds. The legal measure of salt is at the rate of thirty-five pounds for every two hundred pounds of fish; and it is further provided, that each cask shall be filled up with clear, strong pickle, and that the species called Magdalen Herring shall be designated on the outside of the cask which holds the same.

See *Alewives.*

Baked Cod.

Clean the cod nicely inside and out, flour it, and cut thin slices of pork, which secure to the fish at equal distances with silver skewers. Make a stuffing for the belly of grated bread, beef-suet, sweet marjoram, thyme, pepper, salt, and, if you have it, one anchovy. Make an anchovy-sauce for it, or serve with drawn butter. Mackerel may be dressed in the same way.

Boiled Cod.

Cod boiled and served with oyster-sauce is also a favorite dish. It should be boiled in a fish-kettle, with a strainer. Let the water be salted, and it should boil hard when the fish is put in. Let it simmer, covered, for about half an hour. You may crimp cod to be boiled if you please. Pour the oyster-sauce over the fish before it goes to the table.

Salt Cod.

Brush it with a brush kept for the purpose, and then put into water, and let it soak over night. Pour the water off, and put the fish into the fish-kettle, with a good deal of water. Let it come almost to a boil, when remove it to the corner of the fire, and keep it covered till you wish to serve. Put it upon a dish with a drainer, and serve with egg-sauce in a boat.

Boiled Salmon.

This fish may be boiled whole, or the head and shoulders

of a large, thick salmon will make a handsome dish. Scale and clean the fish without cutting it open far. If it is boiled whole, put it into boiling water, in which has been thrown a handful of salt. Boiling water is thought to harden the fish. Put it to boil in a large fish-kettle, with a strainer. If it is put into cold water, it will not be done under an hour, and if it weigh ten pounds, an hour's gentle simmering will hardly be too much. Fish underdone is unwholesome, and looks uninviting. When done, lift the strainer, and rest it across the kettle, that the fish may drain. Heat the dish (which should have a strainer), and heat also a white napkin, and place it in the dish, turn the salmon on gently, without breaking it, and have it sent to the table hot. Serve caper-sauce or anchovy-sauce in a boat.

Salmon Cutlets.

Cut the salmon open, remove the bone, and cut the fillets about three inches deep. Lay them to dry in the folds of a clean, coarse cloth. They may be broiled or fried. If fried, put a few rashers of pork in the pan, or, if expense is not to be considered, use sweet olive-oil. Serve hot, with pepper and salt sprinkled over each cutlet.

Haddock is good, boiled or baked, but on account of its firmness and lightness is generally chowdered. See *Chowder*.

Salmon, cod, or halibut, after being scaled and cleaned, may be cut into handsome pieces, and smoked over the embers of a kitchen fire, rubbing a little salt over each bit, and be broiled for breakfast. See *Broiling*.

Tautog, or black-fish, may be baked with forcemeat stuffing for the belly. Proceed as for baked cod, but baste even more frequently. Wine, water, and walnut or mushroom catchup make a good baste for the tautog.

All small and delicate fish, like smelts, perch, trout, etc., should, after being well dried, be washed with beaten egg,

and dipped in grated bread-crumbs or Indian meal, and fried in hot lard.

Small sturgeons are considered nicest for the table, and the tail-piece or the piece next the tail is to be preferred; but whether baked or boiled, a rich sauce should be prepared, as the sturgeon is a dry fish. The skin should, for these dishes, be nicely scraped, and in sturgeon cutlets or steaks, the skin should be removed.

SHELL-FISH.

Shell-fish cannot always be taken upon delicate stomachs, yet where they sit easily, and are relished, they are said to neutralize acidity in the stomach more readily and completely than any other animal food.

The order Molluscans afford a great variety of food to man. Here are found the common clam, mussel, cockle, periwinkle, and a species of the snail genus, much relished by the Romans, and to this day fattened and eaten by the French, and by them called the *Escargot;* here, too, is the Escallop, whose shells are often used for skimming milk; and last, but not least, here is found the Oyster, which, as an article of food, has always been in request.

Among the Crustaceans we have the crab, the lobster, the cray-fish, or thorny lobster, — much valued by the French, and called by them *Langouste*, but which is but an inferior kind of lobster, — prawns, shrimps, and fresh-water cray-fish.

Here, as the most convenient place, I shall also briefly mention the few animals among the class of Reptiles that yield food to man, — the turtle, terrapin, and frog.

Oysters.

The oyster is found on the coasts of Europe, America, Asia, and Africa. They seldom leave the rocks or substances upon which they fasten themselves. "Like other Molluscans,"

says the learned Kirby, "they are hermaphrodites, and are stated by Poli, the great luminary of conchology, to contain 1,200,000 eggs, so that a single oyster might give birth to 12,000 barrels!!" This is the only shell-fish, as the same author remarks, that man has made certain pits or beds for; such beds are placed where salt water may have access to them at high tide.

Oysters are considered by *gourmands* as a whetter to the appetite, and a few taken before dinner, with a little lemon-juice squeezed over each, are said to stimulate a languid appetite.

June, July, and August are forbidden months for oysters and clams. Small oysters are generally considered the nicest-flavored.

In cooking all shell-fish, great care is necessary, for if they are overdone, or smothered in foreign substances, they not only lose their individual piquancy, but are less easily digested.

Escalloped or Scalloped Oysters.

The shell of the escallop is sometimes used for the oyster; if not to be easily procured, use shallow dishes for oysters thus served. Wash the oysters in their liquor, remove them carefully one by one, strain the liquor to get rid of bits of shell, return the oysters to their liquor, and put them to scald in a stewpan. When heated, remove them, and fill your shells or dish with oysters, sprinkle them with bread-crumbs, a little pounded mace, clove, and slices of butter; heat the liquor again, and work a small piece of butter into a little flour, drop it into the liquor with a dust of cayenne pepper, put it to the oysters, and bake them a light brown.

Fried Oysters.

Wash the oysters from their liquor, dry them in a cloth. Beat two eggs, and grate into another dish a nice loaf of baker's bread. Wash each oyster in the egg, and roll them

up and down in the bread. Fry them in hot lard or clarified butter. When they are of a delicate brown, put them into a warm dish, with pieces of butter between them, and a little fresh lemon-juice.

Roasted Oysters.

Just before they are to be served, put them unopened on a gridiron, which place over a moderate fire. When the shell opens, they are cooked. Be careful to keep the liquor in the shells. Serve on coarse trays with napkins.

Stewed Oysters.

Wash the oysters from their liquor; allow the latter to settle, then strain it carefully, and add to it some whole pepper, a blade or two of mace, and three cloves, and set it over a moderate fire in a clean block-tin sauce-pan; mix a little flour into a piece of butter, stir it into the liquor, cover the pan, and when the liquor begins to heat, put the oysters in, and let them simmer very gently about five minutes. Have your dish hot, and covered with slices of bread that have been dried, toasted, and well buttered, and pour the oysters over them. Only rich, juicy oysters will stew to advantage.

MUSSELS, CLAMS, ETC.

Mussels, Clams, Escallops, etc. may be cooked in the same variety as the oyster, only they require more care, because there are coarse parts to be removed; they must be always trimmed of the beard, and tough unwholesome parts. See *Soups, Sauces, etc.*

LOBSTERS AND CRABS.

The best are heavy. They have when fresh an agreeable fresh smell; the tail of the lobster is stiff, and when pulled springs back; the claws of the crab will have the same elasticity; if stale, they will be flabby, and the eyes will look

dead. Fish, however, is almost invariably presented in the United States in a fresh and wholesome state.

The male lobster has the tail narrower, the upper fins stiffer, and the whole body smaller, than the hen-lobster; its meat is considered the richer, but the female is sometimes preferred for ornamental dishes, on account of the spawn and coral. They are generally bought already boiled, being thrown by fishermen, as soon as caught, into boiling water, and boiled from thirty to fifty minutes, according to their size; boiled too long, they become tough; if not long enough, the spawn will not have an agreeable color. On being taken from the water, they are wiped with a damp cloth rubbed over with butter or sweet olive-oil, which is wiped off afterward.

Lobster and Crab served Cold.

Take off the claws and crack them at the joints, lay the body and tail open neatly with a sharp knife, removing the dark vein, and what is vulgarly known as the lady, and then dispose the eatable portions neatly on the dish. Serve in a salad bowl the following sauce. Rub the hard-boiled yolks of three eggs and the spawn of the lobster together to a paste, add a salt-spoonful of salt, a little cayenne, two large spoonfuls of sweet olive-oil, a teaspoonful of made mustard, three table-spoonfuls of good cider vinegar, and a teaspoonful of anchovy-sauce. The same sauce will serve for plain boiled crabs.

Crabs in the Shell.

Take the meat from the claws and body, mince it very fine, and season it with salt, white pepper, and a little pounded mace. Have the shell nicely cleaned, and sprinkle bread-crumbs into it with pieces of butter, put the meat of two crabs into the shell, and bake in a moderate oven.

Lobster and crab, as also shrimps and prawns, may have

their meat cut into bits, or minced and stewed in white or brown gravy, seasoning with pepper and salt, and be served on toasted bread.

The tail and claws are favorite parts in the lobster.

Turtle.

The larger part of the turtles used in the United States are taken off the Florida coast. The turtle should be kept in water till to be killed, then taken out, suspended by the hind fins, and the head taken off with a knife. Allow it to bleed several hours; then take it down, cut off the fins at the joint, and throw them into scalding water; next remove the under shell or callipee, and put it into another vessel with scalding water; remove the entrails, taking care not to break the gall-bag, and throw the entrails and gall away. The entrails of the turtle are not now used. Remove with a knife the lungs, kidneys, heart, and liver, and throw them into cold water, the liver in a vessel by itself. Put the eggs also, if there be any, into a basin of cold water.

Remove the fins and callipee from the hot water, and skin them first, and cut the meat of the callipee into pieces three or four inches square, breaking the shell, and removing the whole of the meat. The callipash, or meat of the upper shell, may be cut smaller, and the green fat into quite small square pieces. Wash and wipe out the upper shell.

Having washed every part of it, take the coarser pieces and the bone, and put them, with a piece of ham, a knuckle of veal, or eight calves' feet, into a large pot of water. Put in two or three onions chopped fine, a little cayenne pepper, and a table-spoonful of sweet marjoram and summer savory. Let it simmer slowly four or five hours, strain it, and have the pot washed and wiped out. Lay in it some of the reserved delicate pieces, and the liver cut up, and some of the green fat, some forcemeat balls, made of veal, bread-crumbs, and

the usual spices, with a little grated lemon-peel and beaten egg; also the eggs of the turtle, and hard-boiled yolks of eggs. Let the forcemeat-balls and egg-balls be small. Pour the strained soup over the whole, and let it simmer slowly an hour. When it has thus boiled, cut up a lemon or two in slices, removing the seed, and put them into the pot with a pint of Madeira; let it simmer fifteen or twenty minutes, when put it into the tureen.

While the soup is being made, let the finer pieces of the turtle be stewing gently in a little broth, or brown gravy, seasoned with salt, cayenne, and a little finely pulverized sweet marjoram and summer savory. Make a rich paste, and line the back shell with the paste, ornamenting the edge with the same. After the turtle has stewed gently for an hour (adding a very little more broth, if it gets too dry), knead a little flour into a pound of butter, and stir into it, with the green fat, some grated lemon-peel; let it simmer another hour, take it up, stir in three or four well-beaten yolks of eggs, and a pint of Madeira wine; let it simmer about a quarter of an hour longer, then take it off, and when cool put it into the shell. Set the shell, propped up at the sides with bricks or stones, into a moderate oven, and let it bake a rich brown. Let it go to the table in the shell on a large dish, at the same time as the soup. Have lemons sliced, and pickles served in small pickle-dishes at the sides of the table. In a turtle pastry the meat is stewed in a similar manner, and the whole of the top is covered with pastry ornamented by the pastry-cutter.

Terrapin.

These, like the lobster, are thrown alive into boiling water. Let them remain till the outer shell and toe-nails can be removed. Wash them in warm water, and boil them, with a little salt to the water, till the fleshy part of the leg is tender. They should be now removed to a dish, the second shell

taken off, and the sand-bag and the gall carefully removed, and the spongy part be also cut off. After having cut up the meat into small pieces, season it with salt, cayenne, and black pepper, and the yolk of two eggs to a terrapin, and knead a little flour into a piece of butter; let them stew gently for a few minutes, then add a gill of madeira or sherry for every terrapin, and a little browned flour rubbed into a bit of butter; let it remain a few minutes longer in a saucepan, then put it hot into the dish over slices of dried toasted bread.

Frog.

Grenouilles frites, or fried frogs, is a dish which is sometimes served in New England. The hind-quarters of the frog only are used; soak them, after washing them in warm water, in cold vinegar, with a little salt; let them remain an hour in the salt and vinegar, then throw them in scalding water, remove the skin without tearing the flesh, wipe them dry, and fry them with parsley chopped fine, in clarified butter or sweet olive-oil; when fried a delicate color, sprinkle a little pepper and salt over them, and garnish the dish with crisped parsley. Frogs are also sometimes stewed in the saucepan, with butter, wine, a little flour, and, just before they are removed from the fire, the beaten yolks of two or three eggs, and the dish garnished with finely chopped crisped parsley.

FLANNEL. This material, being of animal origin, requires, especially when worn next the skin, frequent washings. Flannel should be thoroughly wet in cold, soft water, and wrung out, and then washed in warm suds made of hard soap. Renew the suds so long as they look discolored. The last suds need not be so strong of soap as the previous ones, but all should be hot. Wring flannels dry, and shake them well. Press them well with a warm iron, on the wrong side, before they are quite dry.

FLOWERS. We have no reason to believe that either Greeks or Romans cultivated flowers so far as to set apart ground for their cultivation. Modern Europe was first incited by the example of the East to this charming occupation. Turkey, Persia, and China had long cherished flowers before the same taste had passed through Constantinople, Italy, Germany, and Holland, and from this last into England. Flora, as if in revenge at this tardy homage from the best part of the world, yielded to the humor of Puck, and from 1634 to 1637 set Commerce off in a mad frolic, and made the Dutchman pay for the music. During the space alluded to, a single root of a fashionable species of tulip would have bought a handsome farm, and have stocked it with cattle, grain, furniture, and provisions.

Flowers are cultivated with an eye to effect, or to botanical arrangement; where the last is sought, all the species of a genus are kept together, though colors must be confused; where effect merely is looked for, plants whose season for flowering is the same, and whose colors contrast, such as blue and yellow, red and green, orange and purple, are selected. Where, however, colors do not form agreeable contrasts, they may be softened by the interposition of white flowers, or dark-colored ones that approach black. So also where flowers are intended for vases or pots, and whose background is to be the blue sky, purple and blue flowers should be avoided, and orange and red flowers chosen.

It is much to be wished that *jardinières* (though the author has found these in the parlors of Bangor, Me., filled with choicest camellias), and baskets of flowers suspended from ceilings and windows, would take the place of expensive upholstery; even the first violets of spring, and the autumn leaves and the blue fringed gentian of autumn, the trophies of pleasant walks, placed about a room, give it a freshness and cheerfulness that is always felt, if not acknowledged.

The limits of this book forbid my entering far into this tempting field; I shall therefore offer only a few hints, as they occur to me.

In watering tender plants, care should be taken to have the water of similar temperature as the plants to be watered, and to avoid throwing the water directly on the collar or neck of the plant. Indeed, the soil is better to be kept dry for an inch or two around such plants, for moisture on the collar frequently leads to disease in delicate plants. The collar or neck, called sometimes the heart of the plant, is the point of union for the ascending stem and branches, and the descending roots, and any injury done to this part of the plant leads to disease or death. If lime-water is used to keep off insects, the water should merely be made a little milky in color.

Decayed leaves, that have been swept together in the fall, and kept in a heap, and turned over once a month, form in about a year the vegetable mould, which is the best manure for flowering plants.

Annuals or plants which live but one summer are, when hardy, sown directly into the garden-soil, pressing the ground with a spade or saucer, sprinkling the seed thinly, and covering them merely with fine earth; but the tenderer kinds are frequently matured in pots, and put into the garden to flower, the first pot being very small, the next one a little larger; and when the roots have stuck to the extremities of the ball of earth contained in the second pot, which can be ascertained by gently coaxing it into the hand, it should be shifted into one a little larger, and so on till the flower-buds begin to shoot, when it may at once be placed in the garden, or, if kept in the house, be no more shifted. Fill the pots up with light, rich mould, and see that coarse bits of crock or similar matter form a good drainage to each pot. Balsams and Cock's-combs that have been brought forward in a healthy manner may be occasionally watered with

liquid manure; but this should not be applied to tender growing annuals.

In transplanting, keep the ball of earth round the plant, and water it well for the first few days, till the ground is set. Perhaps no garden-flower has more increased in size and beauty of color, through cultivation, than the Pansy. The origin of most of the pansies now in cultivation is from the small European violet, *Viola tricolor*, hybridized by some other species. They may be grown from the seed, or by dividing the root. They require in warm weather constant watering, but the soil where they are placed should be well drained. Cultivators seem always to delight in bringing foreign plants home, rather than in improving home productions. The small white violet of our woods, pretty and exquisitely fragrant, has never been cultivated, and in England it is said that our mullein-plant is a conspicuous ornament of conservatories.

Biennials are plants that show no flower till the second year, and then, after ripening their seed, die. I have been told that annuals may sometimes be made biennial by keeping the buds back with thumb-pruning, and sowing the seed late. Wallflowers, Canterbury-bells, Snapdragons, Brompton Stocks, Hollyhocks, are biennials, though, excepting the Brompton Stocks, these frequently last three or four years from the first setting out.

Florists' flowers are such as attain great size and glowing colors by excessive painstaking in the culture, and they are expected to hybridize freely, or to vary much from seed. Florists have a certain coxcombry among themselves, and may be seen criticising and throwing away flowers for some alleged defects in form or color, unnoticed, because unknown, to vulgar eyes; thus, if the Dahlia shows any green in the centre, it is worthless; if in the Auricula or Polyanthus the style projects beyond the stamens, such are called pin-eyed,

and are of no value. The flowers which have been most successfully pampered by florists are the Hyacinth, the Tulip, the Dahlia, the Auricula, the Polyanthus, the Carnation, the Pink, the Ranunculus, the Anemone, the Geraniums or Pelargoniums, the Pansies, the Calceolarias, and the Chrysanthemums.

We have seen that flowers lend their aid to the dyer, and that fomentations are often made of the flowers and leaves of plants. Colchicum, a bulbous-rooted plant, the flower of which resembles the Crocus, affords a medicine used for rheumatism and the gout; but as in large quantities it is poisonous, the extract should never be taken without medical advice.

For those who wish to pursue the science of Botany, the works of Professor Gray of Cambridge, and Professor Torrey of New York, will be of valuable assistance, while the amateur gardener, whose time is limited, will find present help in Mrs. Loudoun's "Companion to the Flower Garden," adapted by Downing to the wants of this country.

FOWLS. The domestic fowls reared for food are commonly divided into,—

1. Gallinaceæ, the Cock kind, comprehending the Common Cock, the Turkey, the Guinea-fowl, the Peacock, and the Pigeon.

2. Palmipedes, the Web-footed kinds, comprehending the Duck, the Goose, and the Swan.

The Swan and the Peacock are now only reared for their beauty, and not for economical purposes.

The Domestic Cock (*Phasianus gallus*) is, among the gallinaceous fowls, the first in importance. The origin of this valuable bird is unknown, though the Jungle-fowl of India is supposed to be the original breed; but it adapts itself to every climate except the polar. The differences in this tribe are

principally shown in their plumage: one breed has a tuft of feathers on the head; the little Bantam has his legs covered with feathers; the Rumplets have no tail; the Friesland Hen has the feathers on her body recurved; another breed, called the Silk-hens, instead of feathers, are dressed in a kind of silken hair. Some of these breeds are more curious than useful. The Friesland or Frizzled Hen, as it is commonly called on account of the appearance of its ruffled plumage, and which does not love a cold climate, and the little Bantam, feathered to the toe, are valued mostly for their beauty, though they are delicate eating.

The approved varieties of fowls are numerous. The Dorking Fowls of England, so called from a town in Surrey, near which they were raised, are among the most popular. When of pure breed, they have five claws on each foot, are large in the body, their color is white, and they are generous layers.

The Poland Fowls are regarded as equally valuable with the Dorking, but they are less inclined to set than those of any other breed. "Their color," says Professor Low, "is black, their heads flat, and surmounted with a crown of feathers." They are good layers.

Among the larger breeds we find the Great Malay Fowl, and the Chittagong breed, which is held now to be a distinct breed from the Great Malay, and to possess more desirable points, having a more capacious body, more delicate flesh, and maturing earlier than the Malay variety. The Chinese fowls, consisting of the Cochin China breed and the Shanghae fowls, have been successfully crossed with the common domestic breeds.

The hatching period is twenty-one days; during this period, the hen should have food and fresh water placed near her. She inclines to eat but little during this time, and when she has perfected her brood, she should be well fed on scalded meal, boiled rice, and similar substances.

The moulting period succeeds to the labors of prolific laying and incubation. It lasts from one to three months, during which time the female generally ceases to lay, or does so rarely, and seems languid and depressed.

A hen is old at four years, and in her fifth year should make way for younger birds. A cock should never exceed three years; if well fed, and of good breed, he matures at three months.

To have a desirable breed of fowls, the finest-formed hen should be chosen (or a thoroughly matured pullet) for breeding purposes, and the cock changed yearly, so as to avoid what is called "in and in" breeding. If pullets are used, they should be well matured; otherwise the breed will be small, tender, and consequently difficult to raise.

Fowls, when confined, should have a building placed above ground, that may be easily ventilated. Their floor should be covered with wood or coal ashes, and the interior of their building should be white-washed two or three times every year, and cleaned once a week. Avoid too much glass, which gives an unnatural heat, and creates distempers. Keep them dry, supply them with fresh water daily, and a variety in their food. When cooped and unable to procure insects, supply them with animal food, and feed them three times a day. A little cayenne-pepper mixed with Indian-meal dough may be given to them occasionally during the winter season. Gravel should be within their reach, and oyster-shells, or similar substances, pounded fine, should be scattered about the coop.

In selecting eggs for hatching, take those of medium size, that you believe have been rendered productive; the large egg of corresponding size at both ends, contains double yolks, which, instead of bringing twin chickens, produce monstrosities. It is said that the position of the air-cell, discovered by holding the egg between the light of a candle and your

eye, indicates the sex of the bird; if on one side, it will be female; if in the exact apex, a male.

Do not attempt to turn the eggs; the hen can do this best herself. It is poor economy to place too many eggs under one hen, though of course a large hen can cover more than a smaller bird; but the large brood often get trodden on by the mother, and they are less healthy and vigorous, on account of being half starved during incubation.

Yellow or brownish colored eggs are mostly produced by hens of Southern breed, and the white alabaster egg, by Northern breeds. There is a superstition among many farmer-wives, with regard to the number of eggs for hatching; they always choose an odd number, nine and thirteen being more desirable than eight or twelve.

The young chickens must be kept perfectly free from cold or moisture, and fed for the first few days on rice boiled dry, or Indian meal boiled and given not too moist. Water should be placed in shallow plates. They should be kept from the damp grass.

Boiled Fowl.

Put it into water that the chill has been taken off from, after having trussed the fowl handsomely, and add to the water a small piece of pork, that has been previously put into cold water and boiled in a saucepan for half an hour; skim the water, and add it to the pot with the pork. Let the fowl simmer, if it be large, an hour and a half. Make an egg sauce, which serve in a boat.

Boiled fowls are sometimes filled, after being trussed, in the crop and body with oysters. In this case the oysters are kept in by tying twine round, and placing the fowl in a jar, which is put into a kettle of water, where it is boiled hard for an hour and a half. Make a sauce, in a saucepan, of the gravy which will be found in the jar, by kneading a little

flour into a lump of butter, chopping a few oysters, and when it begins to heat, adding half a cup of cream, and the beaten yolk of two eggs. Stir it, and remove when it comes to a boil. Serve in a boat.

Roast Fowl.

Having dressed and trussed them, place them before a good fire, with a little salt put to a pan of water, or if you have a tin-kitchen, put the salted water directly into the bottom of it. Baste with this water till the fowls begin to brown, when baste with fresh butter. Make the gravy by boiling the necks, gizzards, hearts, and liver; remove the first, and chop the giblets fine; thicken with browned flour, rubbed into a piece of butter. Serve in a boat.

The Turkey (*Meleagris gallo-pavo*) was found in America by the Spaniards. In his wild state this bird is black in plumage, variegated with bronze and glossy green, and the extremities of his quills are tipped with white.

While young they are exceedingly tender, and if not properly cared for die off rapidly. The turkey-hen lays from twelve to twenty eggs; she seeks out-of-the-way places to lay, and must be watched, her egg removed daily, and a porcelain one substituted.

When the turkey-hen desires to set, she must be cooped if she evinces restlessness, and her eggs be placed under her. The turkey sets on her eggs thirty days. When the young are pipped or born, they must never be handled, but be kept dry and warm, and be fed on bread-crumbs soaked in milk, or scalded meal, and boiled rice. Separate the hen from her young, otherwise she will devour their food. The turkey is a close setter, and should be supplied with fresh food and water; but after her young are hatched, she is apt to take them to great distances, without measuring their ability to keep pace with herself; for this reason, it is better

to keep the mother cooped till her little ones have established their strength. The common hen often has the eggs of the turkey and duck given her to bring out. Turkeys roost very high, and require large perches for their talons to grasp. If cooped, their house should be well ventilated. The practice of cramming turkeys is mostly gone by; they fatten readily when cooped, and fed frequently on fresh food. They like meal made into a thick paste, corn, boiled potatoes mixed with meal, buckwheat, boiled beans, rice, and milk curd; also wheat and barley. Fifteen pounds is a good weight for a turkey, but they are sometimes, by high feeding, brought to twenty and thirty pounds.

Boiled Turkey.

Put the turkey into a kettle of water, from which the chill has been taken. Cover it close, and put it over the fire; when the scum begins to rise, skim it. Simmer slowly for half an hour, then take it off, and keep it covered close in the hot water; if of middling size, the confined steam will cook it enough in half an hour, and keep the skin whole, tender, and white. Put it over the fire again, just before it is to be sent to the table. Serve with oyster-sauce in a boat. You may, if you choose, stuff the craw, after trussing it, with bread-crumbs, chopped oyster, a little mace and salt moistened with egg, serving up the turkey, and proceeding precisely as above directed.

Roast Turkey.

Roast turkeys as you do fowls; but a forcemeat stuffing is always made for the craw, and previous to trussing, the breast-bone is broken, and the sinews drawn from the legs.

The Pintado or Guinea-fowl (*Numida meleagris*) is, as its name indicates, a native of Africa. It is reared in Virginia, where its strange cry is thought to keep off birds of prey.

It is shy, and loves to wander in the woods. It lays a brown-shelled egg, smaller, but richer, than the egg of the common hen. She endeavors to secrete her eggs till she hatches her brood. Her eggs are sometimes given to the common hen to hatch. Her little ones are tender, and therefore early spring is not so favorable for rearing them as a more advanced period in the season. Twenty-eight days is the period of incubation with the Guinea-hen, but it is better to have the eggs hatched by the common gallinaceous fowl, as the male of the Guinea-hen, like the pheasant, has a propensity to destroy the eggs of the female.

The flesh of this fowl is delicate, if taken before it is tough and old; then it is not desirable, even for the pot. It is roasted like the common fowl.

The Common Pigeon (*Columba livia*), on account of its gentleness and trustfulness, is a great favorite; but, says Professor Low, "nothing beyond the gratification of luxury can be derived from the cultivation of the domestic pigeon for food. In vain has it been asserted, that pigeons do not feed upon green corn, cannot dig into the earth with their bills, do little harm to the cultivated crops, and consume only the seeds of injurious plants. The experience of farmers shows that the damage done by these creatures to our various crops of wheat, pease, and beans is very great; and certainly the waste is in no degree compensated for by the quantity which the animals afford of human food."

Wild pigeons, however, form indifferent food when compared with the flesh of the well-fed domestic pigeon.

The common pigeon domesticated, begins generally to breed at nine months, pairing and breeding monthly, the female laying two eggs, which ordinarily are male and female. One pair generally affords the breeder nine pairs annually, for four years. Their coops should be airy, and kept with great neatness. There are various breeds of pigeons, which

are valuable to the bird-fancier, as flowers are to florists, for certain monstrosities and deviations from the usual laws of nature. Thus the English Pouter, that swells his crop to a fearful distention, and the Fantail, that makes his tail-feathers adorn his head like a halo, is of exceeding value to the *fancier* of birds.

Domestic pigeons are nice broiled, roasted, or even boiled plain and served with butter-sauce in a boat, but wild pigeons are only eatable, potted or braised. Young squabs of the tame pigeon, when drawn, and the craw extracted, and washed through several waters, may be cut open in the back, skewered and broiled quickly, and sent to the table with a little pepper and a bit of butter put to each squab. See *Game.*

Among the web-footed domestic fowls, the Duck holds a conspicuous place. The Wild Duck or Mallard (*Anas boschas*) is the original of our common duck; in its wild state it pairs, in its domesticated condition becomes polygamous, but retains some of its shyness, for the female lays away from the house, and secretes her eggs. While hatching, she should not be disturbed; but when her young are out, and she will no longer be induced to keep them in the nest, she must be watched, and not allowed to keep her little brood out long, as the heat and the night dews cannot be endured by them with impunity. The duck brings out her young in a month, when she should be well fed, and have a flat dish given her with water for her little ones, renewing the water frequently, and giving the ducklings meal paste, or boiled rice. If the eggs of the duck are given to the common fowl, the brood of ducklings must be looked to, for, disregarding the call of the hen, they will otherwise remain too long in the water, get chilled through, and die. As ducks are gross feeders, eating animal and vegetable substances of all kinds, before being killed for the table their food should for some weeks be selected for them.

The Muscovy Duck or Musk Duck (*Anas moschata*) is a native of South America. He is larger than the common duck, a huge feeder, and cannibalish in his habits, the author having seen the Musk Drake swallow small chicks. This duck is very prolific, and fattens readily, but the flesh is not superior to the common well-fed duck. It is a handsome bird and a valuable variety. Ducks are favored by gardeners, as they eat caterpillars and insects, and do no harm to vegetables that have got fairly started. Celery and parsley is sometimes sown round the ponds of ducks. Wild celery is said to give the exquisite flavor to the wild Canvas-back Duck.

Duck Roasted.

The ducks being picked, drawn, and singed, stuff the body with potatoes boiled and mashed smoothly; moisten with cream, and season with pepper, a little onion chopped very fine, and salt; put them down to a good fire, with water in the pan of the roaster season the water with a little salt, and baste them with this liquid; if fat, they will require no butter. Make the gravy with the chopped giblets that have been boiled tender, the water from the pan seasoned with two table-spoonfuls of mushroom catchup, and thickened with a little browned flour. Serve hot. Have lemons in side-dishes, cut in two. Half an hour before a good fire will cook ducks.

The Domestic Goose is the Wild Goose (*Anas anser*) domesticated. In marshy districts it is reared without trouble. The female sits on her nest when hatching from twenty-seven to thirty days, covering eleven, and sometimes fifteen eggs. Kept with ordinary care, regularly but not grossly fed, the female lays a hundred eggs annually. The careful hen sometimes has the eggs of the goose, as well as duck's and turkey's eggs, given to her to hatch, though she cannot cover more than six; but as the goose is valuable, and her

eggs but little used in the kitchen, the assistance of the hen is often desirable, especially as the goose generally inclines to hatch but once a year. Besides grasses and herbs, geese like corn, and indeed most farinaceous substances and edible roots, such as turnips, potatoes, carrots, and the refuse of the garden, such as cabbage-leaves, lettuce, and similar food.

Goslings are tender for the first few weeks, and should be fed, for some days after they are hatched, on meal paste, or boiled rice, or bread soaked in milk, if convenient, if not, in water, and kept cooped; and when they begin to go out, it should not be till the dew is off the ground, and they should be driven gently home before the sun is down.

The cruel practice of plucking feathers from the goose while the bird is alive, used to be indulged in as often as five times a year, but is now discontinued.

One gander is generally allowed to five geese. When confined, they should have roomy coops or cribs; space enough to flap their wings and to get out of the noonday sun; they should have their floor fresh littered with clean straw, be fed frequently, and have a trough of well-supplied pure water.

A green goose is a goose four or six weeks old. It makes a very nice dish.

Roast Goose.

If old it should be kept a few days, and parboiled before roasting; but otherwise, by no means, as it dries the flesh. When drawn, singed, and dried with a cloth, after thorough washing, make a stuffing for the body thus: Take four or five onions, and the liver that has been parboiled in the saucepan, mince them in the chopping tray, add to them an equal quantity of mashed potatoes, a bit of butter, and two beaten eggs; season with salt, pepper, and pulverized sage. If the gravy is made of the water in the pan and the drippings of the

bird, skim it carefully before thickening with browned flour. Many prefer a gravy made of hot claret wine, poured upon the goose by the carver. The stuffings for geese are various; the French use boiled rice, and chestnuts, with the liver, sometimes frying them in sweet lard before stuffing the goose with them.

Green geese are roasted in the same way, only less highly seasoned with onion, sage, and pepper, and bread-crumbs are substituted instead of potatoes for the stuffing. Serve apple-sauce or gooseberry-sauce with goose. An hour and a half before a good fire should be given to a large goose, but a green goose is generally cooked in an hour.

FRITTERS AND PANCAKES. In preparing these articles, which may be varied to an almost endless extent, you should make your frying-pan hot, then rub it with a buttered cloth, or put a little beef-dripping in the pan, and wipe it out; then put in your piece of butter, lard, or clarified beef-fat, and when it froths, have ready your ladle of batter, toss the pan round, and run a knife round the edges of the cake, turning it when it is a light brown. As the fat boils away, take the pan off, wipe it out, and proceed as at first. Remove fritters from the frying-pan with a perforated skimmer, and drain them well.

Oyster Fritters.

Take a pint of rich milk, stir into it alternately an ounce of melted butter, and six well-beaten eggs, and flour enough to make a thick batter. Wash the oysters from their liquor, and dry them on a cloth; to each ladleful of batter, put an oyster, and fry them quickly a rich brown color.

Salsify and Corn Fritters.

The flavor of oyster is thought to be found in salsify, and in green corn grated from the cob. Prepare salsify fritters

by cutting the roots in thin pieces and boiling them in milk and water; when soft, mash them smoothly, removing stringy bits; stir the salsify into a batter made with a pint of milk, two eggs, and flour enough to make it stiff. Fry them in fat of salt-pork, or in butter. Where corn is used, it should be young and tender.

Victoria Fritters.

Take a loaf of baker's bread, slice it into pieces an inch thick, cut each slice in the centre, trimming off the crust, and place the bread on a flat dish. Take a quart of rich milk, a salt-spoonful of salt, eight beaten eggs, stir the whole together, strain it, and pour it over the bread several hours before dinner, that the bread may be equally moistened. Fry in hot butter a delicate brown, and eat with a sweet wine-sauce.

Pancakes.

These may be made of rice-flour, boiled in milk till it is thick. To three ounces of rice-flour, put a quart of rich milk, and when cool, stir in four beaten eggs, and sifted flour enough to make the batter a little stiff. Drain them as you fry them, and sift sugar over each cake. Send them to the table hot.

Indian meal boiled as above directed, and, when cold, mixed in the following proportions, to a quart of the sifted meal, five beaten eggs, a table-spoonful of melted butter, and sifted flour enough to make a thick batter, may be fried either as fritters or pancakes. Boiled rice, or fine hominy that has been left from dinner, mixed with flour, milk, eggs, and a little salt, makes good breakfast fritters.

FRYING. Whatever fat is used for frying should be sweet, the frying-pan should be a little thick at the bottom,

the fire not too fierce, free from smoke, and capable of keeping up a sustained heat. Always have the pan gradually heated with a little fat, and wiped out before the fat for frying is added; ascertain the heat of the fat by dipping the tip of a fish-tail in, or by throwing in a bit of bread; if they quickly crisp, the fat is ready. Fat that has been used for meat may, if strained from the sediment, be used again for fish. Wire-framed baskets that fit the frying-pan, rising about half an inch from it, are now much used for frying. Sweet olive-oil, butter, lard, top-fat (the skimming of pots in which meat has been boiled), and drippings of roast meat, may all, with proper attention to sweetness and their freedom from foreign substances, be used for frying. Butter is improved by clarifying, as then the watery and milky properties which cause it to scorch and burn are removed. Butter is desirable for sweet things, such as fritters, though sweet lard, or good-olive oil, if it can be afforded, is nearly as good; the kidney-fat of beef, cut into pieces, melted, and strained, should be saved for frying. Olive-oil can only be used once, and is therefore every way expensive. It is best to have the pan filled to three or four inches deep with fat; then the materials fry all over quickly; whereas if only a little is put in, it is more apt to scorch, and the substances cooking absorb too much of the fat. What fat is not used should be strained while hot into an earthen jar, and covered closely from the air and dust as soon as it cools. Never put anything into the frying-pan till the fat is hot enough to cook it all over briskly.

FUEL. Fuel is chiefly valuable according to its weight, its power of burning without leaving much incombustible matter, and its freedom from watery fluid. Green wood and wet coal should never be burned on the principle of economy; such materials absorb the heat to convert their moisture into steam.

The Lehigh and all anthracite coals, being destitute of the volatile matter contained in bituminous coals, are more difficult to ignite than these; therefore to bring them to the high temperature necessary for combustion requires the aid of the lighter woods and charcoal. Housekeepers who use furnaces to warm their houses require from seventy to ninety bushels of charcoal, the quantity varying with the size of the house to be warmed.

Charcoal, made newly from the heavier kinds of wood, as oak and walnut, is a powerful, and, for many culinary processes, an economical sort of fuel.

Wood dried under cover is more free from decomposition than that dried in the open air.

Hickory or walnut is the best of our native trees for fuel, and commands, consequently, the highest price; beech, maple, yellow birch, all the species of oak, and locust, form good fuels. Chestnut is unsafe as a fuel, on account of its snapping, and throwing its coals to the extremity of a room. White ash, though capable of burning well, is used principally for the arts, for oars, carriages, the handles of instruments, &c. Black birch is also a compact wood, but valuable principally for furniture, for screws, and implements requiring strength.

FURS. These articles, like the precious jewels, vary in value as regulated by fashion. Ermine and sable, and the court fur minever, which is said to be more becoming than ermine, have, however, long held the ascendency. The varieties of sable are Russian, Hudson's Bay, and Canadian; ermine and minever are Russian furs; the curling chinchilla, used mostly for children and misses, is from Peru. Stone-martin, whose varying brown constantly discloses, in the access of every breeze, the downy white of its under surface, the mink, a sort of plebeian sable, the silver-gray fox of

Oregon, and the blue fox, are all American furs, as are also the several species of lynx, the durable yellow and black fitz, and the gray-squirrel furs.

In putting away furs, they should be well shaken, and put into a close box, either with leaf-tobacco, crude camphor, black pepper, or cayenne, and sewed up in Russian sheeting, or the cover pasted on with flour-paste (taking coarse paper), and the box be put into a clean, cool, dark closet.

GAME. Good wild game finds ready sale in the markets of the United States, and the large cities are plentifully supplied by the contributions of the West, the Canadas, and Europe.

Venison ranks among choice game where salmon does with the fish tribe. The haunch and the saddle of venison are roasted, while the shoulder and breast pieces are stewed, or used for pies. In roasting, the hard skin should be removed; then rub the piece all over with a little table-salt, butter thick sheets of coarse white paper, and cover. It requires constant attention, as it should be turned and basted frequently. When nearly cooked, take off the paper, and baste with claret wine, butter, and a sprinkling of flour.

Venison eaten with blazers should be underdone; a haunch of medium size is cooked in one hour and a half, but for hot plates should be cooked from two to three hours. Currant-jelly is an indispensable accompaniment of venison, and is often used instead of wine for the gravy. Venison eats best when it is freshly killed; when it is old, it is hard, black-looking, with the rich juices gone out of it.

Venison steak should be seasoned with pepper and salt, dipped in butter or olive-oil, and rubbed into bread-crumbs, and cooked quickly on a heated gridiron that has been rubbed with beef-suet. If the venison is not fat, make a gravy of wine, flour, and butter, or of currant-wine. Serve hot.

The Hare of America is common in many parts of the Union; in summer its fur is brown and ash-colored, in winter it is white, and much longer than in summer. It breeds several times during the year, and in the Southern States during the winter months, and has sometimes a litter of six. It is not so highly esteemed here as in the old country. It is taken in the same manner as the gray rabbit, by springes, traps, nets, and also by the gun. If hares and rabbits are young, the ears are easily slit, and the jaw-bone easily broken. Excepting when used for soup, hares and rabbits are not opened, weather allowing, for several days. After hanging for some days, it is paunched and skinned, the heart and liver removed and scalded. They should be well bled and washed through several waters, trussed, and if young they may be roasted, but not without a rich stuffing, made of grated bread-crumbs, beef-suet, a small chopped onion, the liver, if perfectly good, a little grated lemon-peel, the whole moistened with egg and a table-spoonful of claret. Put this stuffing into the belly, and sew it up. Baste with butter. Make the gravy with the drippings of the pan, cream, and the yolk of a beaten egg, and a very little flour. An hour and a half or two hours will roast a hare or rabbit, which should be cooked gradually. When old they are braised or stewed slowly with herbs, wine, water, chopped onion, thickened with butter and flour.

Woodcock is the favorite bird of gourmands, if one judges by their market value, as they frequently bring one dollar per brace. They are to be had from the 1st of July to the 1st of December. The practice of not drawing these birds is more honored in the breach than the observance.

Partridges and Pheasants are marketable from September to the 5th of January, when their after sale is illegal, on account of the food of these birds consisting, while the snow is on the ground, of wild laurel-berries, which renders their flesh poisonous.

Quails are plenty in the fall and winter months, when they are tracked on the snow. They abound in the Western States; they are sold by the dozen, generally bringing one dollar per dozen.

Grouse and Prairie-Hens are trapped at the West in great numbers during the winter, and in the New York market are to be had at one dollar, and frequently fifty cents, per pair.

Plover and Snipe. This tribe, containing six or eight varieties, is sold by the dozen. In Europe plovers' eggs are served in the nest of the bird; the fine blue speckled eggs are cooked, and left again in the nest, which is sent to the table precisely as the winged architect constructed it, a picturesque ornament. It is not an edible nest, like the nests of the Java Swallow, called Salangane, and by some naturalists the Esculent Swallow, though the nest, which is thought to be made of the spawn of fish, is only eaten; the viscous substance is collected by this swallow from the rocks, or gathered from the surface of the sea. The gelatinous matter of these nests, somewhat resembling isinglass, is by the Chinese dissolved in chicken or mutton-broth, and travellers, among others our distinguished countryman, Bayard Taylor, have acknowledged their title to rank as a delicacy.

The Virginia Rail, who builds her nest of sedgy materials near the sea-shore, or in quagmires, when used for the table, should, like most aquatic birds, have a sliced carrot or onion introduced after the bird is drawn, to remove a strong taste induced by the diet and situation of such birds.

The Cedar or Carolina Rice-bird, sold by the dozen, makes a very delicious pie.

The Wild Pigeon requires to be braised, or stewed slowly with savory adjuncts; thus potted, it is very nice; but it never affords such a variety of dishes as the tame pigeon, the young or squabs of the last being delicious, either broiled or served in a pie.

Grouse are generally trussed with the head under the wing; when roasted, they must be generously basted, and not overdone. Toasted bread buttered is laid in the dripping-pan, upon which they may be served with plain butter-sauce. Roasted rare, that is, before a quick fire in twenty minutes, a wine sauce is often made for them.

Partridges and Pheasants require constant basting when roasted, and should have a gravy, and may be, if liked, served on rich buttered toast.

Woodcocks, Quails, Snipes, or Plovers may be roasted, and served on toast, with gravy made of the drippings, a piece of floured butter, and equal proportions of wine and currant jelly boiled together, and sent to the table hot in a boat. These small birds may be stuffed with mashed boiled chestnuts, laid in a deep dish with slices of ham tied over them, and baked in a Dutch oven. Remove the ham when they are sent to the table.

Game that is to be kept some days should not be washed, as the wetting facilitates decomposition.

Wild Ducks. — Canvas-back ducks of the Susquehannah and Potomac Rivers are fat in the latter part of November, and all through December, and are in the market till late in the spring. They feed on wild celery. They bring one, three, and five dollars per brace. Red-head ducks, of similar habits to the canvas-back, are nearly as nice eating.

There is a great variety of sea ducks and of river ducks. Brant is considered the nicest for eating, of the salt-water ducks. In May they are fattest, and the choice duck of the season; they may be had in the New York market, in the spring and fall, from Long Island, and are sometimes introduced in the winter from the South. It is of a delicate build, and not able to stand the rigors of a Northern climate.

The Mallard frequents lakes and rivers. The Widgeon,

the Black Duck, and the Broad-bill frequent rivers and the sea-shore, in the latitude of the Middle States, and are in the markets of the Atlantic cities from fall till late in spring.

The Virginia Gray Duck, which is largely exported from that State, is a choice duck for the table. They are sold sometimes for fifty cents per pair.

The Blue and Green Tail Duck has also a high reputation.

Canvas-back ducks are trussed, wiped out with a clean cloth, but not washed, roasted rare for about twenty minutes or half an hour before a good fire. Currant-jelly should always be on the table to mix with the gravy of such as fancy it, and heaters provided for each plate.

Where sea-ducks are tough and fishy, they must be stuffed in the body with sliced carrot, and parboiled for twenty minutes, then relieved of the carrot and roasted, basting with fresh butter, and serving with celery, wine, or hot currant-jelly sauce. Wild ducks may be nicely trussed, and laid in a pan with butter and a small onion in the body of each, laying pieces of butter in the pan, with a bunch of celery or sweet herbs, a little pepper, and salt. Let them stew slowly, covering the pan; when done, strain the liquor found in the pan, and pour it hot over the ducks. Garnish with sliced lemon.

Ducks before going to the pot or spit should be wiped dry, and the river ducks should be rubbed on the inside with pepper and salt, excepting the canvas-back, which should be left to its generous juices as far as possible.

Wild geese are cooked rare, like ducks, and to the made gravy is added a glass of port or claret, and a little finely chopped onion. Where the wild duck or goose is rank and oily, the dripping-pan should be skimmed, and the seasoning to the gravies should be more pungent; a little cayenne, onion, and made mustard may be used in exceeding nice quantities with advantage.

Wild turkey may be stuffed with oysters, and served with oyster-sauce, or if the turkey be fat and rich, the made gravy of the pan may be seasoned with mushroom catchup; or better yet, the small button mushrooms, stewed in butter, cream, and seasoned with a little salt and pepper, may be poured hot over the turkey, the made gravy being served in a boat. If the turkey be tough, it should be boiled half an hour in water seasoned with salt, and a bunch of celery or sweet herbs, and be well basted in roasting.

Since steam plays with such vivacity between the old and new country, we exchange with our cousins of England the exquisite Canvas-back, and take their Pheasants and Scotch Grouse.

GOOSEBERRIES. The native varieties are little cultivated; our garden sorts are from the North of England. Gooseberry plants are raised from cuttings. The strongest and healthiest shoots of the current year are selected, (cutting off the buds that would go under the ground,) and put about six inches under the surface of a rich, deep soil; the earth should be pressed closely round the slips, and when they have rooted, in about a year's time, they should be transplanted into a rich soil. Cuttings may be set out early in spring or fall.

Gooseberry plants require to be well manured every year, digging in a heavy top-dressing on bearing plants; they also require close pruning. Lime, sulphur, wood-ashes, mixed into the top soil, are good to operate against mildew, to which disease these plants (especially inferior sorts) are liable; a cool situation, such as an open border, is also advisable for them, for the same purpose. Should the soil be dry, it must be mulched or covered under the surface with straw and litter.

If you would train as trees, no suckers must be allowed to grow. Many cultivators prefer the gooseberry and currant

to grow as bushes. Prune when the plant is out of bearing in spring or fall, cutting the tops; and when in bearing, some of the fruit may be removed if very heavy, and some vigorous shoots thumb-pruned to perfect the remaining fruit.

Cuttings may be struck every season. The best garden varieties will only pay for the care and expense of annual cultivation. There are almost endless varieties of the red, yellow, green, and white gooseberries. The following sorts are taken from Downing's Fruit and Fruit Trees, as styled by him: —

Selections of sorts for a very small garden. Red: Red Warrington, Keen's Seedling, Crown Bob. Yellow: Early Sulphur, Yellow Ball. White: Woodward's Whitesmith, Early White, Taylor's Bright Venus, White Honey. Green: Pitmaston Green Gage, Green Walnut, Parkinson's Laurel.

Gooseberry Sauce.

Take fruit just ripe, pick off the tops and stems, and weigh an equal quantity of sugar to the fruit, dividing the sugar into two equal portions. Make a sirup of one portion, and put the gooseberries into it, over the fire; let them remain till they are transparent, then remove them, and make a sirup of the reserved sugar, adding to it the sirup of the gooseberries, gently dipping it off; let it boil till thick and rich, and then pour it over the fruit. The fruit, by this process, will be less tough, and keep its flavor better than if cooked longer.

GRAFTING. (*Bohemian method.*) It is well known that desirable sorts of fruit and their varieties are not easily raised by seeds or cuttings, and that various modes of grafting (the French practise over fifty modes) have always been practised by gardeners for the purpose of continuing and improving choice varieties. The following method, accepted

by French gardeners, has lately appeared: — Take a healthy slip from an apple-tree, or the tree you wish to increase, and insert it into a potato and plant it, leaving about two inches of the slip visible. The slip is said to take root, and grow vigorously into a fruit-bearing tree.

The season for grafting trees is in the spring, when the sap is in motion; the cherry and plum are first ready for the process, the pear and apple being some weeks later. A mild, showery atmosphere facilitates all the processes of grafting.

GRAPES. Passing by foreign grapes, as too wide a subject for my limits, I shall confine myself to a few remarks upon our native grape, which is found growing wild in most of the States. The varieties of native grapes best known are the Isabella and the Catawba; both of these are hardy, and grow rapidly in a bright, sunny, open exposure, though they ripen with difficulty in Maine, New Hampshire, and Vermont. The Isabella, being two or three weeks earlier than the Catawba, is the variety chosen usually for garden culture in the Eastern States.

The Catawba, a native of Virginia, found in the region of the river whose name it bears, is cultivated extensively at the West, for wines; it is not so sweet as the Isabella, but has a more racy, vinous flavor. The Isabella is a native of South Carolina.

The garden culture of native grapes and their numerous varieties is found by most persons so exceedingly easy, that it is wonderful that every home whose premises command a sunny, open exposure, does not keep a vine.

Mr. Downing recommends, when the upright mode or the spur mode of training is pursued, that the first season's growth of a newly planted vine be cut back to two buds the ensuing fall or spring. "These two buds," he remarks, "are allowed to form two upright shoots the next summer,

which, at the end of the season, are brought down to a horizontal position, and fastened each way to the lower horizontal rails of the trellis, being shortened at the distance of three or four feet from the root, — or as far each side as the plant is wished to extend. The next season, upright shoots are allowed to grow one foot apart, and these, as soon as they reach the top of the trellis, are also stopped. The next year, the trellis being filled with the vines, a set of lateral shoots will be produced from the upright leaders, with from one to three bunches upon each, which will be the first crop. The vine is now perfect, and, in the spur mode of pruning, it is only necessary at the close of every season, that is, at the autumnal or winter pruning, to cut back these lateral shoots or fruit spurs to within an inch of the upright shoot from which they spring, and a new lateral producing fruit will annually supply its place, to be again cut out at the winter pruning." If vines are not kept back by pruning, they soon exhaust their vigor in the first few years. Old vines, whose fruit has diminished in size and flavor, may be cut down to the lower shoots of the trellis. The authority just quoted has remarked, that his experience was that six or eight feet was the distance at which to plant the native grapes. "Assuming," he says, "the trellis to be eight feet high, then each vine will extend either way three or four feet, covering a space eight feet square. In this form, the roots and branches extending but a short distance, they may be kept in high vigor, and a state of constant productiveness, for a great length of time."

Prune grapes a month before vegetation commences, or in mild latitudes prune the vines in November.

The native grapes, though growing in most soils, do best in soils which are rather strong and rich. The ground round the growing plants should be kept free from weeds and stirred lightly on the top, and deeper out of the reach of the

roots. The usual fertilizers are good for the grape, if not applied till fermentation has taken place. Vegetable mould, ashes, and bone manure are all excellent.

The grape-vine is easily propagated by layers (bending branches of the previous or current year's growth down at any time before midsummer, and covering with earth), or by cuttings, which the annual trimmings abundantly afford.

Grapes may be kept many months by being packed in substances that have been dried by heat, and kept in a cool, dry room. Mr. Cole says, in his Fruit Book, he has preserved grapes in excellent condition for several months, "by laying them into small baskets on paper, four to eight quarts in each, covering them with paper, cotton, or a cloth, and hanging them up in a well-aired, dry room."

HAMS. Those which are bought generally require to be soaked twelve hours, changing the water frequently, and to be thoroughly scraped and cleaned before going to the pot. Cover the ham with water, and give a quarter of an hour's boiling to each pound; then take it out of the pot, skin it, sift grated bread over it, and put it into the oven, and let it bake another quarter of an hour to each pound. Gourmands boil their hams in hock. See *Bacon*

HOGS. These animals have been of immense assistance to the settlers of our Western country.

The hog is not a native of America, but was introduced here by the Spaniards.

The common hog adapts himself to all climates, and almost all food. These dispositions and habits, together with his fecundity, and the readiness with which his flesh receives salt, makes him alike valuable to the daily laborer and the wholesale dealer.

In a state of nature, the wild hog (*Sus aper*) feeds on

plants and roots, seeks moist and shady retreats, and pierces the earth with his snout for food, which his acute smell indicates to him.

Like other domesticated animals, the hog has been subjected to careful training, to improve his valuable properties. We have introduced into this country quite extensively the Berkshire hog, which is an improved English breed, very superior for pork and bacon. This hog is of the ancient stock of England, crossed with the blood of the Eastern hog, and principally by the varieties styled Chinese hogs, which have been largely imported into the old country. This Chinese mixture, while it diminished the size of the old English stock, improved the properties of form, and the disposition to fatten.

The desirable features in the hog's form, indicative of a tendency to secrete fat, are similar to those of other live stock; a broad and deep chest, ribs rounded or arched, neck short, head and limbs small, soft bristles, skin soft and elastic. (Low's Practical Agriculture.)

The female goes with her young one hundred and twelve days.

Hogs love moist and succulent food; clover and other green food, the refuse of the garden, and the gleanings of the table, may be given to them, though for final fattening they require farinaceous, or other nourishing food. Sour fruit should not be offered to them, unless mixed with saccharine substances. They should be fed three times a day, have clean troughs and clean beds, and it is of great advantage to animals of single stomachs, like the hog, to have their food boiled or steamed, especially when they have not access to forests for exercise. Coarse meal, or bran steamed or boiled, is good food for the hog; pease and beans partially cooked can be given occasionally.

Virginia bacon is thought to owe its sweetness and flavor

to the privilege the hogs enjoy in that State, of running in the woods in the autumn, and gathering acorns and green food.

When intended for pork, pigs are at the best age at six or eight months; but for bacon they must be brought to a full size, which can only be done in ten or twelve months. For bacon, the larger breeds of hogs are generally reared; for pork, the smaller varieties are selected.

HEDGES. These fences are beginning to be used extensively in some parts of the United States, both as a natural defence against encroachments, and as ornaments to wire-fences of small gardens. In England, the application of hedges for public roads and private enclosures is so extensive, that the linear extent has been supposed to be many times the circumference of the whole earth.

Hedges for mere ornament and shade are made of *Ribes sanguinea*, or Flowering Currant, of Tree Box, of Ivy and other hardy climbers, of some species of the Buckthorn, and of Arbor Vitæ; of this last there are some very fine examples in Jefferson County, Virginia.

Hedges to exclude cattle and trespassers are made of the common English Hawthorn (*Cratægus Oxyacantha*), and different species of North American thorns of the same genus. Among the numerous varieties of American Thorns is the Cockspur Hawthorn (*Cratægus Crus-galli*); this and its varieties have fine glossy leaves of dark green. *C. Pyracantha* has pure white flowers and brilliant red berries, which are abundant enough to have given it the name in France of *Buisson ardent*, or the Burning Bush; it grows well in many parts of America, but perhaps is not native. It produces its white blossoms after its third year, annually, in June, when the American Hawthorn (*Cratægus coccinea*) is in bloom.

It is best to choose for a hedge that kind of Hawthorn

that takes most kindly to the neighboring soil of the grounds to be enclosed.

"In Great Britain," writes Timothy Pickering, "hedge fences are generally accompanied by ditch and bank; principally (I presume) because the ditch and bank, aided by a slight railing, make an immediate fence; and because in flat grounds ditches serve for drains. But in America, where wood is yet sufficient in quantity for complete fences, while the hedges are growing, and where, too, we are subject to heavier rains, which cause destructive gullies, doubtless Mr. Main's plan of plain hedging, without ditch and bank, is most eligible. A ditch is an artificial gully, which in sloping grounds every considerable rain must mischievously increase."

This distinguished man was among the first in this country to set out the Locust-tree (*Robinia Pseudacacia*) as a hedge. From the rapidity of its growth, its bearing the shears, and the tendency of the stems to interlace with one another, it makes a good hedge. If the seeds of Locust are sown, it should be when frosts are over, and in rows far enough apart to admit the hoe. When two years old, they are generally fit to set out.

All the species of Cratægus or Hawthorn grow best in dry soils. "The seeds of the common Hawthorn often lie," says Mrs. Loudoun, "two years in the ground before they germinate, if not prepared before sowing by being suffered to lie for several months in what is called a rot-heep, and which is often turned over during that time, to prevent the seeds from having their vital powers destroyed by the heat generated by fermentation. The finer kinds of thorns are generally grafted or budded on seedlings of the common Hawthorn."

INK. The best inks are such as are made of the nut-gall and sulphate of iron, and gum-arabic. Other substances

are often added, such as logwood, sulphate of copper, and sugar. Dr. Bancroft's receipt, for proportions, is twelve ounces of galls, to be boiled with six of logwood, in five quarts of soft water, for two hours, the decoction to be strained, and made up one gallon, to which five ounces of sulphate of iron, five of gum-arabic, and two of muscovado sugar, are to be added. A simpler mode has the authority of a celebrated chemist; it is to infuse three ounces of galls, one of logwood, one of sulphate of iron, and one of gum-arabic, in a quart of cold water for a week, adding four grains of corrosive sublimate to prevent mouldiness. An extraction of the soluble parts of the galls may be more economically attained by the repeated affusion of fresh portions of the water, than by steeping them in the whole at once. A single drop of oil of lavender prevents ink from moulding. Put one drop to a pint. (Quarterly Review, No. 21, Art. XIV.)

INDIAN MEAL. This article should not be bought in large quantities for family use; it should be kept in a cool closet, and many housekeepers place in the centre of their meal chest or tub a large clean stone; it tends to prevent fermentation, and to keep the meal cool.

Indian Bread.

Boil a cupful of sifted meal in a little water and salt till nearly dry, stirring often; let it cool, then add five eggs well beaten, and enough rich milk to make a thin batter. Bake in a quick oven, in small tins. Butter the tins.

JELLIES. Almost all fruit-jellies are made by adding a pound of sugar to a pint of strained juice of fruit; yet if the best white loaf-sugar is used, and the fruit is just ripe, and gathered when the weather is dry, and the extracted juice is reduced by boiling, a pound of sugar to a quart will

make lighter and clearer jellies. The exceptions are cranberry, gooseberry, and blackberry, which all require a pound of sugar to a pint of juice.

We shall give one receipt, which may answer for several.

Currant Jelly.

Strip currants that are just ripe into a stone jar, cover the jar, and set it into a kettle of warm water; let it boil one hour over a moderate fire. Pass a linen or flannel jelly-bag through hot water, wring it dry, and pour the currant juice into the bag, secured to the table with a dish under it. Do not squeeze the bag. When the juice has escaped the bag, measure it, and against each quart of the juice weigh one pound of the best quality of white sugar. Put the juice without the sugar into a porcelain kettle, and let it boil up once. Take it off and put in the sugar, which should be crushed to a powder, and add it gradually while the juice is hot. Put the jelly into tumblers, cover with thin paper, cut to the glass, and paste white paper on the outside to exclude the air. Keep it in a dry, cool place.

Jellies that are mawkishly sweet are flavored with a little lemon-juice.

Black-currant jelly would be very close and thick, if a little water were not added to the fruit when it is put into the jar to boil.

Where inferior sugar is used, it should be put in with the fruit, and carefully skimmed. Jellies require to be boiled longer when the sugar is indifferent.

LAMB. This delicate meat should have the kidney fresh and fat, the quarters thick, and in the fore-quarter the vein of the neck should be, if fresh, blue.

The leg may be boiled or roasted. When boiled, let it sim-

mer slowly. If small, that is, weighing about four pounds, three quarters of an hour will cook it. Shoulder of lamb may have the bone removed, the vacancy stuffed with force-meat, and be baked in an oven, or braised in a Dutch oven. The leg is sometimes prepared in this manner.

Breast of lamb has the chine-bone chopped off. Notch the breast well, and either roast it, or stew it with gravy and a sprinkling of sweet herbs and mixed spices; finish by browning it in an oven. Serve it with green peas or asparagus.

Lamb cutlets are taken from the neck. Trim them, flatten them with a small mallet or the back of the knife, season them with pepper and salt, egg and bread-crumb them, beat them gently, dip them into a little clarified butter, and give them another dressing with egg and grated bread-crumbs. Fry them a delicate brown, using clarified butter, or sweet olive-oil. Lamb cutlets may be simply seasoned and broiled plainly.

Lamb chops are cut from the loin, taking off the flap, cutting the chops not quite an inch in thickness. The loin can have about eight chops taken from it, three of which should have a bit of kidney to them. Heat the gridiron, rub a little beef-suet on it, place two or three of the chops on it, and place them over clear coals, free from smoke. As the chops warm, season with salt and pepper. Broil them a light brown, and serve hot with bits of butter placed between each chop.

LARD. This is extracted from the leaf or inner fat of a newly slaughtered pig or hog. After trimming the skin and fibrous parts off, it may be cut into pieces and placed over a moderate fire, with a little water, say a large cupful; as it heats, the water evaporates. Stir it frequently; dip off the fat as it melts, and strain it into clean stone jars. When

cool, cover the jars closely, and keep them in a cool, dry place. The first dippings will be whiter lard than the last.

This leaf-fat may be converted into lard by another process. Fill a jar with the fat broken into pieces, and set the jar into a pot of boiling water; as the fat melts, strain it, and proceed as already directed.

LEMON SIRUP. Squeeze the juice from fresh lemons, strain it, and to every pint of juice add a pound of the best double-refined loaf-sugar. Crush the sugar with a rolling-pin, and stir it gradually into the strained juice. Put the whole into a preserving-kettle, over a moderate fire. As it heats, skim it; when it comes to a boil, take it off the fire, pour it into a large china bowl, and in twenty-four hours bottle it in fresh sweet bottles. You may, if you please, add one table-spoonful of pure French brandy to each bottle. Cork closely, and keep the sirup in a cool, dry closet.

MEASURES AND WEIGHTS. The labors of scientific men and the authority of governments have always been directed towards discovering and enacting one common weight and measure. Laws were enacted in England to this effect as early as Edgar; afterwards, as if they had not been effectual, the Magna Charta, cap. 25, declares: "One measure of wine shall be throughout our realm, and one measure of ale, and one measure of corn, that is to say, the quarter of London. And it shall be of weights as it is of measures." Our mother, England, from whom we have gathered our highest instincts of law and equity, and whose generous milk can never be out of us, has since been constantly engaged in endeavoring to make weights and measures uniform throughout her dominions.

To enter into the origin or follow the variations of standards for weights and measures, either as created and regu-

lated by political economy or scientific deductions, would be to exceed our limits, either of capacity or space. The origin of the standards appears often to have been accidental; thus "Henry I. ordered the length of his arm to be the criterion of the yard measure; and 51 Henry III. declares 32 grains of wheat dry, taken out of the midst of the ear, to be the standard weight of the twentieth part of an ounce." "It is with this subject," says a writer in the Quarterly Review already quoted, "as with laws and manners: constant attempts at improvement appear necessary even to prevent deterioration. Experience shows that few matters have a greater tendency to grow worse, or more obstinately resist correction, than common usages in weights and measures."

I have collected the following tables of measures and weights, as likely to be valuable to many of my readers; the first table, calculated by James M. Garnet, Esq., of Essex County, Va., was first published in Mr. Ruffin's Farmer's Register; the second is taken from the Agricultural Journal of New York.

Garnet's Table.

A box 24 inches by 16 inches square, and 22 inches deep, will contain a barrel, or 10,752 cubic inches.

A box 24 inches by 16 inches square, and 11 inches deep, will contain a half-barrel, or 5,376 cubic inches.

A box 16 inches by 16.8 inches square, and 8 inches deep, will contain a bushel, or 2,150.4 cubic inches.

A box 12 inches by 11.2 inches square, and 8 inches deep, will contain half a bushel, or 1,075 cubic inches.

A box 8 inches by 8.4 inches square, and 8 inches deep, will contain one peck, or 537.6 cubic inches.

A box 8 inches by 8 inches square, and 4.2 inches deep, will contain one half-peck, or 268.8 cubic inches.

A box 7 inches by 4 inches square, and 4.8 inches deep, will contain a half-gallon, or 131.4 cubic inches.

A box 4 inches by 4 inches square, and 4.2 inches deep, will contain one quart, or 67.2 cubic inches.

These measures come within a small fraction of a cubic inch of being accurate, and are as absolutely perfect as any measures of capacity for common use have ever been made.

Table of the Number of Pounds of various Articles to a Bushel.

Of Wheat, sixty pounds.
Of Shelled Corn, fifty-six pounds.
Of Corn on the cob, seventy-five pounds.
Of Rye, fifty-six pounds.
Of Oats, thirty-two pounds.
Of Barley, forty-eight pounds.
Of Middling, forty-five pounds.
Of Bran, twelve pounds.
Of Shorts, eighteen pounds.
Of Clover-seed, sixty pounds.
Of Timothy-seed, fifty-six pounds.
Of Hemp-seed, forty-four pounds.
Of Blue-grass-seed, fourteen pounds.
Of Castor-beans, forty-six pounds.
Of Dried Peaches, thirty-three pounds.
Of Dried Apples, twenty-five pounds.
Of Onions, fifty-seven pounds.
Of Salt, fifty pounds.
Of Mineral Coal, seventy pounds.

Measuring Grain in Bulk.

To reduce solid feet to bushels, multiply the number of solid feet by 45, and divide the product by 56 : the quotient will be the number of bushels.

Reason. — As one bushel contains 2,150.4 inches, one solid foot is $\frac{4}{5}\frac{5}{6}$ of a bushel.

Example. — How many bushels in a box or crib 8 feet long, 4 feet wide, and 2 feet deep? Multiply the length by the width and depth, and the product by 45, which, divided by 56, gives $21\frac{3}{7}$, the number of bushels which the box contains. (New York Tribune.)

MUTTON. This meat is procured from the outer islands of Maine, of excellent flavor. Mutton made from a five-year-old wether is nicest for the table, and if made from a sheep under three years it is flabby and vapid, not matured in its rich juices. A leg of mutton may be hung about a week or ten days before it is cooked. In color, rich mutton is of a clear, darkish red.

When a leg is boiled, it is generally liked underdone, and then some slices can be sent to the kitchen for a broil, if any guest prefer it so served. Mashed turnips and caper-sauce are served with a boiled leg of mutton.

The leg and many other pieces of the sheep may be roasted or stuffed with forcemeat and baked, adding to the gravy a little port or claret wine. Mutton to be roasted may be kept longer than that to be boiled; it should be trimmed of all strong, musty bits, and well wiped with pepper and salt before going to the fire. See *Lamb.*

ONIONS. These vegetables should be skinned and soaked half an hour in cold water before they are cooked, and when half cooked the water should be poured from them and renewed by fresh cold water. Onions boiled in milk lose much of their bitter taste. Rareripes or onions from the bulb are sold in bunches of two and a half pounds; onions from the seed, in bunches of three and a half pounds.

PARSNIPS. Wash and scrape them well; if old, they will take nearly an hour's boiling, but by probing it can be ascertained when they are tender; divide those which are

large. If milk is plenty, boil them in milk and water. They are served with boiled dishes, simply boiled; with roasts they are sliced and fried in sweet lard or butter, but must first be boiled. They are sweetest in spring, after being wintered in the ground.

PASTRY. To one pound and a quarter of flour add a quarter of a pound of nice lard, rubbing it well into your flour; add water till it is stiff enough to put on your paste-board, allowing it still to be as soft as it can be worked. Sift flour over your board, and lay the paste on. Have ready a pound of butter, from which the salt and buttermilk have been worked and pressed out; put the butter in pieces all over your paste, dust over a little flour, fold up your paste, and roll it out. Again put bits of butter all over the surface of the paste, then flour and roll it in as before, and proceed in this way till your butter is all worked into the paste.

PEACH (*Amygdalus Persica*). This fruit is said to be grown in larger quantities in the United States than in any other country in the world; it is principally, however, in the Middle, Western, and Southern States that it is successfully cultivated. In the Eastern States it is raised only with great care, and constantly deteriorates in quality. The health and duration of peach-orchards depend upon the care with which the seed has been selected, which, to produce healthy seedlings, should be taken from districts where the *Yellows* is not prevalent, upon the nature of the soil, and the care with which over-luxuriance is checked by pruning the extremities of the trees.

"The very best soil," says Downing, "for the peach, is a rich, deep sandy loam; next to this, a strong, mellow loam; then a light, thin, sandy soil; and the poorest is a heavy, compact clay soil. In ordinary cases, the duration of peach-

orchards in the light, sandy soil is rarely more than three years in a bearing state. In a stronger soil, with a proper attention to the shortening system of pruning, it may be prolonged to twenty or more years."

Where soil is thin and light, the peach-orchard receives top-dressing, and the sod should not be allowed to become hard and stubborn; strong soils may be opened by the plough, and kept under culture with advantage to the trees. The space allowed between peach-trees in orchards varies from sixteen to twenty-five feet, the greater space being given to warm climates and rich soils.

A peach-stone planted in autumn vegetates the following spring, and may be budded in August or September; in two years more it gives a small crop of fruit, and the next season, if not too luxuriant in growth, yields to the cultivator a generous crop.

For preserving the peach whole, select the large October Clingstones; pare them and weigh to them an equal weight of sugar. Crush the sugar with a rolling-pin, and sprinkle it over the peaches; after they have stood a few hours in the sugar, put them in the preserving-pan with a little water. Scald them, and remove them carefully with a perforated ladle to a flat dish. Boil and skim the sirup, put the fruit with some blanched kernels again to the sirup, and preserve the peaches very slowly till transparent.

Peach Marmalade is made of the Yellow Freestone. Pare and stone them, and put one pound of good brown sugar to every two pounds of fruit. Put it over the fire without water if the fruit is juicy; stir it frequently, and let it boil till it becomes transparent. It is very nice for pies.

Brandied Peaches.

The large, white peach, just ripe, is taken for this purpose. Place them in lye to remove the down; let the lye be

weak and cold. Take them out and rub the woolly down off with a coarse crash towel. Have a rich clarified sirup prepared, and pour it scalding hot over the peaches; fill up the jar with pure French brandy. When cool, cover closely. If you use glass jars, pour the scalding sirup over the fruit in a stone vessel.

PEAR (*Pyrus communis*, L.). The pear-tree is not a native of America, but has been introduced from Europe. "The seeds," says Downing, "should be sown precisely like those of the apple, in broad drills, and the treatment of the stocks, when planted in the rows for budding, is quite similar. Budding is almost universally preferred by us for propagating the pear, and this tree takes so readily that very few failures can happen to an experienced hand." See *Budding*.

Seedlings are considered the best stocks for pears. Seedlings of plebeian birth, but strong and healthy, are to be preferred to a seedling from a pampered variety. To get seedling stocks, clean the seed as soon as the fruit is matured, and sow it in deep rich soil; if you have no such soil, trench about two feet deep, and fill up with compost corrected by ashes. A healthy seedling of two years' growth is fit for budding.

The dwarf tree pear is the pear grafted on some slow-growing hardy stock. The Quince is usually preferred; some large pears are said to be improved in habit and flavor by being grafted on this stock; Downing instances the Duchess of Angouleme as so improved. The dwarf tree is generally short-lived; its advantages are in the brief time requisite to bring fruit to the cultivator, and its economy and nattiness for a small garden. Though we find the pear-tree in a great variety of soils, yet a damp soil induces disease, and a soil too rich and deep tends to create a rank, unripened luxuri-

ance. The pear-tree requires but little pruning. In extensive orchards in warm latitudes, the pear-tree is sometimes planted thirty feet distant each way; in fruit gardens, where the heads are occasionally pruned, twenty feet is often considered sufficient. Pear-trees whose first vigor has gone by require every autumn a moderate top-dressing of manure, instead of violent enriching, which induces disease.

The pear is attacked by an insect, *Scolytus pyri*, whose ravages produce the disease called the *insect blight;* the leaves become dry and brownish black, and the wood becomes dry and hard. *Remedy:* — Cut off the diseased branches as soon as the disease is noticed, some inches below the withered, blighted symptoms of disease, and burn the branches.

The Frozen-sap Blight.

This is a more serious disease than the former, the diseased sap spreading infection over the whole tree. It is induced generally in soils that are over-rich, and force second growths in the same season, whose wood is unripened for winter; varieties of the pear which mature early are not so liable to feel this disease as the later growing sorts. Cultivators have found that the means of warding off the visits of this disease are to select a rich but well drained or dry soil, to cultivate such varieties as mature their wood early, to avoid severe summer pruning and prune in winter or early spring, to reject cold soils and situations as not favorable for speedy growth and maturing of wood, and to abstain from summer manuring, as calculated to over-stimulate and bring on a second growth of branches. Cut off the affected parts some distance below the diseased wood; if it spreads, cut again. Burn the branches as you cut them.

Most varieties of pear have the fruit more highly flavored by ripening it in the house; gather it when it parts readily from the stalk, and has assumed its double color; spread the

fruit on floors or shelves. Winter dessert pears are allowed to remain till there is danger from frost.

The varieties of pears are too extensive to be mentioned in a work like the present: every year adds to them. "Dessert pears," says Downing, "should have a melting, soft texture, and a sugary, aromatic juice. Kitchen pears, for baking or stewing, should be large, with firm and crisp flesh, moderately juicy."

Perry, the fermented juice of the pear, is prepared much the same way as cider; it makes a milder and probably more wholesome drink. A pleasant vinegar is made from it. The large pound pear is gently stewed, after being pared till soft, in a weak sirup made of brown sugar.

Some of the varieties of winter pears are usually chosen for preserves and marmalade. Owing to the sweetness of the pear, an equal weight of sugar is not taken for the preserve, and a little preserved ginger-root or lemon-juice is added to the sirup of the pear.

PEAS. Green peas should be put into boiling water with a little salt, and some of the less sweet varieties are improved by a piece of sugar. Leave the pot uncovered, and boil rapidly. Twenty minutes will cook them if young. Drain them, and put bits of fresh butter in the dish and on top of the peas.

PEPPER. *Piper nigrum* is a plant which grows in India. This shrub produces common pepper, the unripe berries being the common black pepper; the matured seed, or berries deprived of their epidermis, is the white pepper of commerce.

PICKLES. These articles are prepared by greening them with salt and water, and then steaming them in spiced vinegar, or the salt is used, to give some articles firmness.

Many housekeepers do not boil their vinegar because it loses strength by it, but pour it on to their pickles scalding hot. Put pickles in stone jars or glass vessels, never in glazed dishes. Pickles are made yellow by being taken from the brine, wiped, and exposed on a cloth to the action of the sun, and turned frequently; if they become white after the first day, they should be put with some turmeric powder into cold vinegar, and afterwards into spiced vinegar.

To pickle cucumbers, beans, and gherkins, put them in salt and water, changing the water every other day; let them remain nine days, drain them, and put scalding vinegar over them. Use good wine or cider vinegar for pickles.

To pickle onions, take the small button-onions, bury them in salt six days, then skin and trim them with a sharp knife; throw boiling water over them three times, allowing them to cool each time in the water. After the third scalding put them in a glass jar, and fill it up with white French brandy, put on cold. Put a little salad-oil on the top of the jar, and cover closely with a bit of bladder over the cork, or use bottle cement.

Mangoes are made either of the muskmelon or cantelope. Make a slit with a sharp knife, remove the seeds, and fill them, after they have been kept in a strong brine of salt and water for nine days, pouring it over hot the first day. Rinse and dry the melons with a cloth, and stuff them with mustard-seed, pepper-corns, mace, cloves, one small onion and a gherkin to each, a bit of cinnamon and scraped horseradish, filling till they are plumped, and tie each with coarse twine. Make a bag of linen cloth and fill it with ginger-root, cloves, mace, and such spices as you please, and lay it over the mangoes after they are laid in the jar. When the strength of the spices is spent, refill the bag with French spice. Cover closely.

To pickle cherries, take them when they are just ripe but while the flesh is firm, trim the stems, put a layer in a jar,

and sprinkle a little powdered loaf-sugar over them. Proceed till the jar is two thirds full, then pour over pale white vinegar, and put a large spoonful of salad-oil on top. Barberries in bunches, and peaches not over ripe, may be pickled in a similar manner; only these require to be steeped, and the sugar may be boiled in the vinegar and the sirup be poured over a little hot.

To pickle cauliflowers, take the fairest blooms and steep them in scalding brine for a few minutes, drain them, and, pulling them into branches, put them into glass jars and pour cold vinegar over them.

To pickle the Black Walnut (*Juglans nigra*), and the Butternut (*J. cinerea*), gather the nuts when they may be easily pierced with a coarse needle; in New England this is towards the last of June. Put them into salt and water, and shift them every other day for twenty days. Take them out, drain them dry, turning them to expose them to the air. Put them into jars. Boil in vinegar cloves, horse-radish, and onions, and pour over them boiling hot. Tie up a little bag of ginger and put it on top of each jar. Tie down close with leather or bladder to exclude the air. In three months they will be fit for use.

PIG, TO ROAST. Take a pig four or five weeks old, well cleaned and washed, truss his feet and skewer them, tie them down flat; take next some slices of bread, butter and sift pulverized sage over them, put them in the body of the pig, and sew him up. Put your pig on the spit, have a brisk fire with about a pint of salt and water in the dripping-pan; make a swab and swab it to prevent its burning; when quite brown, butter freely. Have from the pan where the pig is roasted a full pint of gravy, take the harslet, previously boiled, chop it fine with the brains from the head, adding part of the bread which was in the pig after cutting him for the table,

and put all these to the gravy; if you find the gravy not rich enough, add a piece of butter. Divide the pig down the back, after having separated the head. Put it on the dish feet outward, the brown skin of course upwards, and the head on either side; or put it on separate dishes half and half, placing them at opposite ends of the table. Before removing the pig from the spit, expose it on each side to the cold air that it may crisp. A pig of the above age takes about two hours before a good fire. It must be attended to constantly, or it will get scorched.

PLUM (*Prunus domestica*, L.). The plum of our gardens is from the southern parts of Europe, or from Asia, but it has become thoroughly naturalized; the wild native plums, of which there are two or three distinct species, have never been much cultivated. The plum-tree is hardy, and requires little pruning, excepting to cut off diseased branches, and to thin off a crowded top. Pruning is always undertaken before midsummer, to prevent the flow of sap.

The plum is easily propagated by sowing the seeds of any hardy variety, excepting the damsons, which are rather uncertain, and budding the seedlings when about two years old with desirable varieties. Soils charged with heavy clay are favorable for the plum. The muck from salt-water marshes is excellent manure for this fruit-tree, and common salt is also much approved of; it is applied to the surface of the soil under each matured healthy tree, early in spring, in proportions regulated by the size and constitution of the tree; some cultivators put half a peck of coarse salt to large bearing trees, sprinkling the surface as far as the branches extend. Salt is excellent for the plum-tree, both as a fertilizer and as a preventive to the attacks of the curculio, or plum-weevil (*Rhynchœnus Nenuphar*), an insect whose ravages sometimes entirely destroy the hopes of the cultivator of the smooth-

skinned stone-fruits. Punctured by this insect, the fruit falls when only partially ripe to the ground. The best remedy is said to be a hard, heavy soil, unpropitious for the workings or life of the insect or its larvæ. The next is to destroy all the punctured plums as they fall, to jar the tree with a mallet swathed in cloth, and catch the plums on a spread cloth, destroying the fruit, and to allow fowls to run in the orchard. Keep the earth around plum-trees free from weeds, so that insects may be more readily discovered, and the smoother and harder it is kept the better.

The Knots, Black Wart, or Black Gum, is only to be destroyed by cutting off the infected branches and burning them. This disease is thought to be the work of an insect, but nothing has ever been demonstrated with regard to the cause or causes.

To preserve Plums, select handsome fruit, not too ripe, and of a fine flavor; mawkishly sweet fruit makes an indifferent preserve. Pare and divide them to remove the stone, keeping them as whole as possible. Weigh to their weight an equal quantity of the best loaf-sugar. Crack the stones, and blanch the kernels. Lay the fruit hollow upwards in flat dishes, and sift white sugar over them. Let them stand over night. In the morning cover the bottom of the kettle with the fruit, putting to them a little water; let them simmer very slowly, and spread them after they have simmered a few minutes, as before, on flat dishes. Make the sirup of the weighed sugar flavored with the kernels of the plum-stones. Put the plums in glass jars, and when the sirup is only warm pour it over the plums. The sirup should be clear and thick. When cool, cover with brandied papers, and white paper turned over and pasted down. Plums after being first simmered are sometimes preserved in apple jelly.

The best prunes are exported from France, and are made near Tours of the St. Catherine plum, and the Prune d'Agen;

the Provence plums and other kinds are also used; these last are called in England French plums. See Downing.

PORK, TO CUT UP. Take off the head of the hog just below the ears, cut him open right up and down the back, and take the leaf-fat out for the lard; then take a strip from the pig's belly about one eighth of a yard in width, this is not so nice as the leaf, and is not usually mixed with prime lard. Turn the hog and cut out his legs and shoulders, then cut out the spareribs and chine-bones, leaving the fat as thick as possible for salting; that is, cut very little fat pork out with the spareribs and chine bones. Cut the remainder of the pork in strips the length of the carcass and an eighth of a yard in width, and bend them so as to pack them for salting in the barrel.

The fat round the intestines of pork is usually tried out for soap and similar uses.

POTATOES, TO BOIL. Have your potatoes about the same size by dividing the larger ones. Cover them only with water, and sprinkle a little salt between each layer of potatoes. Put them in cold water and allow them to simmer slowly. Prove them to see if they are done; if they receive the fork easily, pour off all the water, and leave the kettle uncovered, and near enough to the fire to evaporate the moisture of the potatoes, but not to scorch them.

POULTRY, TO PLUCK. Turkeys and chickens, after being bled to death by sticking or making an incision in the neck, should be put into scalding, but not boiling-hot water, and be stripped of their feathers. Geese and ducks may be put to water that is nearly of a boiling heat, and then steamed in a thick cloth that the down may be easily removed.

PRESERVES. Where fruit is to be kept for months

by being preserved in sugar, it is the best economy to procure the double-refined loaf-sugar; then nothing is lost by clarifying and separation of scum when making the sirup, though when the fruit is added, the crude acids that float to the surface should be removed. Let the sugar be always dissolved in the water before going over the fire. Parboil and skim most fruits in a weak sirup, and then cool them before putting them into the rich sirup made of sugar in equal weight with the fruit. All fruits should simmer gently till soft and transparent, and a kettle be kept for the single purpose of preserving them; the porcelain-lined kettles are desirable. Select fruit for preserving that is just ripe, and very fair. Most stone-fruit should have the stone taken out to keep well. See receipts under respective heads.

To preserve Ginger Root, soak the quantity you wish to preserve two days in warm water, then scrape it, and slice it rather thin; make a sirup of the sugar after weighing it an equal weight of the root; take a little of the sirup, dilute it with water, boil the root in it till it is tender, then skim out the root, add the remainder of the sirup, and boil and skim the sirup till it is thick and quite clear; pour it over the ginger when cold.

PUDDINGS. As the intelligent housekeeper varies these dishes to her fancy or convenience, we shall not give large space to them.

All boiled puddings should have room left them in the cloth to swell, else they will be hard; they should be tied in such a manner as not to admit the water, or they will be water-soaked; they should be often turned in the pot to prevent berries or raisins from settling; a plate should be put into the bottom of the pot, that the pudding may not get scorched. Before the pudding is put into the cloth, this last should be wrung out of hot water, be well shaken, and then

be dredged inside with flour. The cloth, if washed out in hot lye instead of soap and water, will be sweeter, and free of the soapy taste that cooks sometimes permit to adhere to these things. Russia sheeting makes good pudding-cloths.

Farmer's Pudding.

To one cup and a half of cold water, put a large teaspoonful of salt, one cup of molasses, one full cup of beef-suet, one full cup of raisins, flour enough to make it stiff. Tie it in a pudding-cloth, giving it room to swell; when the water boils, put in your pudding, putting in a coarse plate to prevent the pudding from burning before it rises. Three hours will cook it. Be careful not to allow the water to stop boiling.

Squash Pudding.

One gill of squash, one gill of milk, one egg, one ounce of butter; rose-water, sugar, and spice to your taste.

Marlborough Pudding.

Six table-spoonfuls of apple after it is stewed and strained through a sieve. Six eggs, six ounces of sugar, six ounces of butter, the juice and grated peel of a lemon, a small blade of mace pounded, a table-spoonful of rose-water; melt the butter and stir it in just before you put the pudding into the oven. Both the Marlborough and Squash puddings are baked in paste.

Thanksgiving Plum-Pudding.

One loaf and a quarter of baker's bread grated and sifted without the crusts, one pound and a half of stoned raisins, six ounces of butter. Butter the dish and cover with bread; then a layer of raisins and small lumps of butter alternately until your dish is two thirds full. Then pour over the following custard: to nine gills of milk add ten eggs,

one half-pound of sugar, beating the sugar and eggs together, one glass of wine, one half-glass of rose-water, one glass of brandy, one teaspoonful of saleratus dissolved in milk, two nutmegs, and a little salt. Two hours will bake it, and if the directions are followed, it is a delicious pudding.

Sauce for the Same.

To one half-gill of wine, and the same of rose-water, half a pound of loaf-sugar, and a lump of butter as large as a good-sized egg. Put it over a moderate fire, and stir it for fifteen minutes; when it has boiled up well, grate half a nutmeg into the sauce-boat, and pour the sauce in.

QUINCE (*Cydonia vulgaris*). This tree is a native of Europe. Its reputation commenced in the city of Cydon, in Crete or Candia, whence its botanical name.

The Quince may be grown either as a bush or a tree. It may be propagated from seed, layers, or cuttings; but the seed is uncertain, the seedlings sometimes being the apple-shaped and as often the pear-shaped variety, though taken from the first, and *vice versa*. Cuttings, shaded and planted early in spring, root readily, and most cultivators recommend this mode of securing a good variety. The approved sorts may also be budded on common seedling Quince stocks, or on the common Thorn. We have seen that the Pear is dwarfed on Quince stocks. The Quince should have a deep, rich soil, and an annual top-dressing of manure, to have the fruit in perfection. It requires but little pruning; to be relieved of crowded or unhealthy branches is here its only need. It has visits from the Borer; but this and other insects must be watched and destroyed, as directed for the Apple-tree.

There are three very distinct varieties of the Quince that are especially useful. The Apple-shaped Quince or Orange Quince. Fruit of the size of the largest apple, skin smooth,

color fine golden. The most popular fruit for preserving, as it cooks tender, and the trees bear abundant crops. There are inferior varieties of this species.

The Pear-shaped Quince or Oblong Quince, formed like a pear, ripens a fortnight later than the Apple Quince. Flesh is rather tough, and makes an inferior preserve when compared to the above, both in color and tenderness. It has an aromatic flavor, and affords a good jelly.

The Portugal Quince has a healthy growth, with a leaf larger and broader than the more common varieties. Its healthy habits make it a favorite with many gardeners for stocks on which to engraft or bud the Pear. The fruit is of the largest size, oblong; but the color of the skin is not so deep an orange as that of the other kinds.

The Portugal Quince yields a scanty crop, and is styled by cultivators a shy bearer, and is not consequently so generally cultivated as the Apple Quince; its fruit is milder than that of other quinces, cooks more tenderly, and assumes when cooked a purplish-crimson color.

The Musk Quince bears fruit of only half the size of the common sorts. It is highly scented, but owing to its size is little cultivated for market.

Besides these useful varieties, there are ornamental varieties from Japan and China. They are exceedingly pretty and well-known garden shrubs.

The Japan Quince (*Cydonia Japonica*) has small dark-green leaves, and clusters of brilliant scarlet blossoms. Fruit useless.

The Blush Japan is very like the above, excepting that the flowers are white and blush.

The Chinese Quince (*Cydonia Sinensis*) has oval leaves, glossy surface, small, red blossom, with a delicate odor. The leaves red-tinted in autumn. The fruit ripens late; it is a large oval, and is said to make an agreeable preserve.

Quince-trees are set about ten feet apart.

To Preserve Quinces.

Rub the quinces hard with a clean coarse cloth, scald them till you can pass a fork through them, then peel them and cut them in quarters; remove all the hard substance which is found in the centre of the fruit after the core is taken out (for this spoils the quince if left in). Then take the sirup which has been previously prepared thus: To every pound of sugar one half-pint of water, and in proportion to four pounds of sugar the white of one egg, put them together cold, and when dissolved put it over a moderate fire to simmer gently; do not touch it while simmering, but when it begins to rise, have ready to pour upon it half a teacup of cold water; when it swells up the second time, put in another half-teacup of cold water; but when it rises the third time, take it off gently from the fire, and sit it by to cool twenty minutes; then skim it and pour it off, wash the kettle clean, cover the bottom with the quince, pour over just sirup enough to cover them, and let them simmer gently till the sirup becomes a jelly. Keep the kettle covered (except when you are removing the white, which will rise, and must be taken off), and if the Apple Quince is used, the fruit will be perfectly white and well done; take the quarters out on a dish, and when the sirup is cool, put them together in glasses.

Another Way.

Select the fairest fruit of the Apple-shaped or Portugal varieties, wipe them and peel and core them; as you divide them in halves and quarters, sprinkle loaf-sugar over them; weigh against the fruit the best loaf-sugar, pound for pound, and put this sugar aside to make the sirup, as above directed. Put the fruit into the bottom of the preserving-kettle and just cover it with water; let it simmer gently, when remove it to a flat dish and sift white sugar over it, and put the dish into an oven almost spent, leaving the door open; do so till

the whole amount has been in the oven about fifteen or twenty minutes; then take it all out, and set it on one side in a dry closet, covering it. Make the sirup, and the following day preserve the quince till the sirup jellies. Add the water, strained, that the fruit was partially cooked in, to the sirup, letting it simmer with it. The fruit thus preserved will have a high flavor, and be a rich, purplish red.

Jelly may be made of the parings and the cores of the quince, though, where the fruit is plenty, the whole quince is washed, wiped, and sliced through without paring, and the kettle filled, and the fruit just covered with water; when the fruit is tender, the whole is passed through a flannel jelly-bag. To each pint of juice a pound of loaf-sugar pounded is added. Boil about twenty minutes. If the fruit and sugar are both of best quality, and the water is merely enough to cover the quince, less sugar may be used to bring a good jelly; but great care is requisite in this last case, whereas the full proportions yield a jelly without trouble.

RABBIT. We have, besides our wild rabbit (*Lepus Americanus*), the European rabbit, which has been largely imported. Our rabbit is distinguished from the European rabbit (*Lepus cuniculus*) by its hind legs being nearly ten inches long, and its change of color, in the summer being covered with brown and ash-colored fur, which in winter becomes white and increases in length; it is frequently styled the American Hare. There is also the Siberian rabbit (*Lepus tolai*).

Where the tame rabbit is reared for profit, the variety selected for breeding should be of the larger kinds. "Those termed," says Professor Low, "the French and Turkish rabbits, are much esteemed. The rabbit selected for breeding, we are informed by the breeders of them, should be wide in

the loin, and short-legged. In the management of the rabbit, the utmost attention must be paid to ventilation, cleanliness, and food. The animals are most conveniently kept in boxes, or compartments termed hutches, one above the other round the room. Each hutch intended for the does should have two divisions, one for feeding and the other for sleeping. Those are single which are intended for the use of the weaned rabbits, or for the bucks, which are always removed from the female. There should be little troughs in the hutches for the food, which consists of corn, hay, roots, and green plants, or any farinaceous substance. Boiled potatoes are an excellent food for the rabbit, as for every kind of herbivorous animal. The female, when the time of parturition approaches, makes her nest, for which hay is to be furnished her. She bites it with her teeth into the requisite size. She generally produces from five to ten young. At the end of six weeks the male is again admitted to her, and the young ones weaned, or she is allowed to suckle them for two weeks more. They are either sold from the teat when they are extremely delicate, or they are kept on for a certain period and fattened. Good and nourishing food is to be supplied to them, and three months' feeding is generally considered necessary to fatten them properly."

The rearing of the domestic rabbit, on account of the prolificness of the animal, its wholesome flesh, and the little expense attending its keeping, appears to be worthy of more attention than it has received.

The doe carries her young about thirty days: if she be weak after parturition, some warm drink is given to her, such as milk and water, or beer caudle. Green food, such as clover, should not be given wet, as it produces disease; it should also be varied with oats and similar substances.

RASPBERRY (*Rubus Idæus*). This shrub, it is well

known, repays careful culture. It is propagated by suckers or offshoots, seed being used only for obtaining new varieties. Two or three suckers are generally put together to form a group or *stool;* plant the suckers in rows about three, or, if convenient, five feet apart, and the stools about three or four feet apart, in the rows. Let the soil be deep and rich, rather moist than dry. Keep them free from weeds. Prune when the crop is off, by cutting away old wood and feeble suckers, and trim back about a foot of the remaining shoots, and give each hill a light top-dressing of vegetable mould, and a little salt or sea-weed may be worked in with other fertilizers. The foreign varieties require to be treated in the fall like climbing roses: round each hill put straw and sea-weed, and, bending the branches gently over, cover them for the winter with evergreen boughs. In spring the bushes are trained, or simply tied to stakes or rails, so as to be exposed to the sun. Late fruit is obtained by cutting down some of the stools to within a short distance of the ground.

A plantation of raspberries is considered to be in perfection at the third year, and to be exhausted in five or six years, when a new one should be laid out on another piece of ground.

The common American Red Raspberry is a native of the Eastern and Middle States. It is valued for cordials. (See *Cordials.*)

The American Black, or Thimbleberry, is stewed for a common preserve.

The American White is similar to the Thimbleberry, excepting in the color of its fruit, which is of a pale yellow or white.

The most desirable foreign varieties (though these things are constantly progressive) are the True or New Red Antwerp (the common Red Antwerp being inferior); the Yellow Antwerp, a large light-colored raspberry; the Fran-

conia, a variety imported from France by S. G. Perkins, Esq. of Boston; the Fastolff Raspberry, an English variety of great reputation; and some others of good reputation.

The Ohio Everbearing is a native of Ohio; it is like the American Black Raspberry, excepting that it bears late in the season, even to November in favorable seasons.

A wine is made from the raspberry in the same manner as from the currant. Raspberry-jam may be made by weighing an equal quantity of sugar to the fruit, and boiling them together. A very nice way of preserving this fruit is found in the following receipt.

Raspberry-Jam.

One pint of currant-jelly, one quart of raspberries; examine the fruit well to remove all insects, bruise the fruit and jelly together, and set over a slow fire, keeping it stirring with a silver spoon all the time till it boils. Allow it to boil five or six minutes. Pour it into your glasses warm, papering them as you do currant-jelly. It will keep for two or three years, and have the full flavor of the raspberry.

SALADS. These dishes should never be fully prepared till just before they make their appearance on the table, so that the vegetables or herbs may be crisp and light; and where meats are used, as lobster and chicken, the dressing should be poured on at the last moment, otherwise the mustard toughens the meat, and gives the whole dish a flabby, spent look.

Chicken Salad.

Boil a hen-chicken or fowl that has a white skin till tender. When cold, cut the meat from the bones into pieces about an inch in size. Take a bunch of celery (or two if small), have it nicely cleaned, and keep in cold water till just before it is cut up. Prepare the dressing thus: Take five

eggs and boil them hard for ten minutes, mash the yolks with a wooden spoon very smoothly, mix with them a salt-spoonful of salt, one table-spoonful of mild mustard (half of this if very sharp), three table-spoonfuls of sweet olive-oil, one small teaspoonful of India soy or Worcester-sauce, three table-spoonfuls of vinegar. Beat the whole together. Cut the celery into bits of half an inch, mix it well with the chicken, and then shape the whole with the wooden spoon, and garnish with the green leaves of the celery, and slices of cold, hard-boiled eggs. Have the whole lie lightly, so that the dressing when poured on may settle all over the salad. Serve with a boxwood spoon and fork.

SAUCES. These matters are best made for the most part in the *bain-marie* or double kettle, the outside compartment being filled with hot water; especially should the *bain-marie* be used for butter, egg, and cream sauces.

Melted Butter.

Mix in half a gill of water smoothly two teaspoonfuls of flour and a little salt; take a quarter of a pound of butter, and work out all buttermilk. Put the water and flour to the fire, and when it comes to a boil, stir in the butter till it is melted, then remove it from the fire. Make melted butter just as it is wanted. This sauce may be flavored with various essences, herbs, capers, or what you please. For fish, stir in a teaspoonful of anchovy-sauce.

Fish Sauce.

Rub a teaspoonful of flour into a quarter of a pound of butter; when well kneaded, put it into your pan with a table-spoonful of water. Take the boiled liver of your fish, and bruise it very fine, put to it a little cayenne pepper, and a table-spoonful of tarragon vinegar. Just as the butter, which

should be constantly shaken, begins to boil, add the liver with its vinegar, and remove the sauce from the fire. Serve in a boat, or over the fish. Vinegar may be flavored with tarragon by gathering the leaves of the herb in July or August, and filling a bottle half-full of tarragon leaves, and filling up with vinegar.

Russian Sauce for Cold Meats.

Four table-spoonfuls of grated horseradish (grate it with a fine grater), two spoonfuls of made mustard, one salt-spoonful of salt, the same quantity of pounded loaf-sugar, and vinegar enough to cover the ingredients. Keep it closely bottled, and it will keep for some months.

Egg Sauce.

Melt your butter thick, and chop fine two or three eggs that have been boiled ten minutes. Put the chopped egg into the boat, and pour the melted butter over them. This is eaten with boiled chicken or boiled fish.

Oyster Sauce for a Boiled Cod.

Strain the oysters from their liquor, wash them out in cold water, and drain them dry. Pour the liquor from its sediment, and put it over the fire; to a pint of liquor put one glass of claret, the juice of half a lemon, a blade of mace, and a little butter thickened with a teaspoonful of flour; let it almost boil, then add half a pound of butter, and let it melt, shaking it well; lastly add, after taking out the mace, a dozen and a half of oysters; let them scald, but not boil. Put the sauce into a boat.

Game Sauce.

Grate half of a baker's loaf of bread (cutting off the crusts); add to it a little salt and grated nutmeg, half a gill of

claret, and the juice of two oranges; when your fowls are half roasted, put the above over the fire with a quarter of a pound of butter, into which you have kneaded two teaspoonfuls of flour; shake it while it melts, then put it under your fowls with the gravy in the pan.

Celery makes a good sauce for game, when cut in bits and boiled till tender, adding a little cream, a bit of butter rolled in flour, and seasoning with pounded mace and a very little nutmeg. Celery is so abundant in flavor that but little spice should ever be used with it.

Venison sauce is usually made by adding to the gravy currant-jelly and a glass of red or white wine; or the jelly may be served in small glass dishes, as venison is always eaten over chafing or hot-water dishes.

SAUSAGES. Hon. L. J——'s Parisian receipt is as follows: Three ounces of sage, two and a half of cloves, two and a half of pepper, eight of salt, and three nutmegs, to twenty-five pounds of meat, which should be one half fat and one half lean. This is a very nice receipt for sausages, and was given to me by a gentleman who resided several years in Paris, and there procured it. It is unnecessary to say that the sage and spices should be pulverized, and well pounded and thoroughly incorporated with the finely chopped meat. It may be cooked either in balls or skins.

SEA-KALE. (*Chou marin. Orambe maritima.*) This plant is grown, cooked, and served (excepting the toast) very much as asparagus.

It should be gathered before it is matured, for then it is tough and stringy. Soak it in salt and water, and then put in some fresh water with a little salt; let the pot be filled with water, and let the kale boil quickly for fifteen or twenty

minutes. Drain it very thoroughly, and serve with butter-sauce, or bits of butter laid under and over it. This vegetable requires to be freshly gathered when it goes to the pot. Keep the pot while boiling, for the most part, uncovered.

SOAP FOR WASHING. Two pounds of hard soap, four quarts of rain-water; let it dissolve; add one quarter of a pound of saleratus; let it almost boil, then add one teaspoonful of tartaric acid, one teaspoonful of arrowroot; let it all boil twenty minutes. Pour it out into a baking-pan; let it stand all day and over night, then slice it, and put it in the oven to dry. This soap makes flannels look handsomely.

Ox-Gall Soap.

Take one quart of ox-gall, and slice into it two pounds of best yellow soap (Alexander Dickinson's Extra No. 1, manufactured at Cambridge, Mass., is the kind I have used). Set it on the range and let it simmer until the soap is dissolved or melted; add a large spoonful of table-salt, and pour it into flat pans; cut it into bars when cold, and dry it; it will become very hard and keep for years. A very little of it will wash nice prints, de laines, &c., and it is excellent to wash or scour woollen table-cloths, piano-covers, &c.

SOUPS. I have given some rules for soups when speaking of almond soup and turtle soup; here, therefore, I shall give but a few receipts for these preparations. To offer receipts for shank soups, or mutton broths, to American housekeepers, would be to expose myself to the rebuke given by Judge Marshall to the counsellor who was proceeding to lay out his mental wares much as Sydney Smith says a Frenchman does of whom you have imprudently asked information upon some point, when the mild Judge finally interrupted the everlasting drone of commonplace with, "Mr. ——, there are

some things with which the Court should be supposed to be acquainted."

Clam Soup.

Brown a quarter of a pound of butter and thicken it with flour, then pour in as much water as you judge sufficient for your soup, put in a piece of veal or small leg of lamb, and one pint of clam-liquor, a finely chopped onion, a little thyme, pounded pepper, cloves, and mace, but no salt, as the clam-liquor will answer for that; add a gill of wine, Madeira or sherry; a yam boiled in it is a great improvement; let it boil three hours, when take not less than fifty clams, trim them and cut them in small pieces, and throw them in the soup half an hour before you dish. The Yam (*Dioscorea sativa*) is extensively grown in the West Indies; its root is farinaceous, and it is both roasted and boiled, or served in soups when it can be procured, where its presence is thought to be much desired.

Mock-Turtle Soup.

Boil the well-cleaned calf's head and feet in water just sufficient to cover them; skim it well, and allow it to boil till the meat can be easily cut from the bones. Take out all the bones and cut the meat in small pieces and strain the liquor over it; add to it one quarter of an ounce of ground pepper, one quarter of an ounce of pounded clove, some pulverized sweet herbs; put it again in a clean kettle over the fire, and let it simmer, but not boil. About half an hour before you take the soup up, put in forcemeat balls; have the balls the size of large English walnuts; reserve some of the forcemeat balls to fry brown in butter; at the same time have ready a bottle of claret or port wine, and pour it into the kettle. Boil twelve eggs ten minutes, and when the soup is to be sent in, cut the eggs in two pieces and garnish the sides of the dish with them and slices of lemon. Have some of the force-

meat balls served hot on small oval dishes. These should be fried a delicate brown.

Forcemeat for the above: — Take a loaf of baker's flour-bread, and grate it; add an equal quantity of beef-suet, chopped very fine; season highly with pepper, clove, salt, nutmeg or mace, cayenne, sweet-marjoram, and wet the whole with eggs till they may be rolled in balls. Those which you fry will require but little butter, as the fat fries from them.

Oyster Soup.

To fifty oysters, one pint of water, one pint and a half of milk, to be mixed with the liquor. Wash the oysters from their liquor, and strain the last or pour it from its sediment; then add the water, and half a spoonful of ground mace, a salt-spoonful of salt, half a salt-spoonful of ground clove; let it come to a boil; strain it through a cloth, then add the milk and the oysters, and let it come once more to a boil. Take one large spoonful of flour mixed smoothly like mustard, stir it in, and take off the pot; put in a piece of butter; brown three thin slices of bread well dried in the oven previous to toasting, cut them in small square pieces and lay them in the dish, and pour the soup over them.

STRAWBERRY. (*Fragaria.*) Select for this valuable plant a deep loamy soil, that will allow of free culture; for though an herbaceous plant, the roots of many varieties if encouraged will penetrate to the depth of two feet in one season; hence the ground should be ploughed and thoroughly pulverized to the depth of a foot or more, then spread on a few inches of well-decomposed stable-manure, and harrow in, making the ground level; mark it off by a line in alternate rows of three feet by eighteen inches. Choose strong young plants, taking them up carefully in order that the roots may be entire, and set them in the rows, eighteen or twelve inches

asunder. In its wild state, the strawberry blossom is perfect; but culture has altered the habits of most of the varieties, though the European Wood and Alpine Strawberries still, under every cultivation, retain their primitive habits, giving from every blossom perfect fruit. Barren plants are those which have flowers in an imperfect state, deficient either in stamens or pistils; imperfectly provided with pistils, they are styled male plants; deficient in stamens, female plants. But the term is a convenient rather than a correct one, as the organs are not absent, but only imperfectly matured.

In view of this habit of the cultivated Strawberry, the plants are set out in the proportion of one staminate to fifteen or twenty pistillates, either in alternate rows or in close proximity. The pistillate flowers produce the fruit, but the pollen of the staminate has previously fertilized them. Cultivators watch the growth and bearing habits of their plants, and those which are barren are not allowed to usurp the bed, but are kept trimmed of runners. Stakes may be put in near the fruitful plants, and runners be selected from good bearers for new beds.

Early in the spring is the best time for setting out plants, varying of course according to the season and the latitude. Care should be taken to keep the ground free from weeds through the summer, and at the approach of winter the beds should be covered two or three inches deep with coarse litter, vegetable mould, and earth from the woods. This light dressing need not be disturbed in the spring, as the plants will find their way through and grow vigorously.

Varieties.

These are very numerous, many having been introduced from abroad. Our native Wood Strawberry, called abroad Virginia Scarlet, has given us the varieties called Scarlet Strawberries; the Pine or Surinam Strawberry, the sorts

called Pines; the Wood Strawberry of Europe, the class called Woods and Alpines; the Hautbois are from Bohemia, the Chili Strawberries from South America; and besides these sorts there are green, white, and black Strawberries. For all practical purposes one or two best varieties should be chosen, the early and later bearers.

Early Virginia is an early bearer, yielding early in June till towards the last of the month. It is a bright scarlet, very juicy, and a general favorite.

Hovey's Seedling comes into bearing as the Virginia Early goes out, and continues into July. As is well known, it was raised in 1833 by Messrs. Hovey, in their garden at Cambridge. It has more than any other variety raised the character of the Strawberry. It is easily hulled, yields abundantly, and the vines are very vigorous. It is cultivated not only in New England, but the farmers of Virginia hold it their choicest variety.

Among the Pine Strawberries, Poss's Phœnix, when cultivated on a rich, deep loam, bears a high reputation, and a heavy crop of fruit. It grows in clusters, the berries flattened at the top; it has a rich, fine flavor, and a color of dark purplish-red. In the extreme Eastern States it is an uncertain bearer.

Alpine and Wood Strawberries have varieties which are popular, owing to their continuing in bearing till late in the season, and to their flavor, which is fragrant and sweet. The Bush Alpines are distinguished for being without runners; they are propagated by dividing the roots. They make a good border.

The Hautbois Strawberries have a variety called Prolific Hautbois, which bears abundantly. Its flowers are always perfect, rising above the leaves; the fruit is dark-colored, of a rich, musky flavor, ripening rather early. The vines sometimes bear a second crop. This variety does not mix.

Preserved Strawberries.

Take the largest and best garden strawberries that are not over-ripe; weigh against each pound of fruit a pound of the best loaf-sugar; set it aside for the sirup. Sprinkle the fruit with a little powdered white sugar; make the sirup with the weighed sugar; set it one side to cool. Put the strawberries over the fire in a *bain-marie*, with the sirup which they have made of the powdered sugar; let them be scalded and then taken off and cooled. When cold, put them in the prepared sirup; let them simmer slowly till they look clear, take them out gently into glasses. Boil and skim the sirup, and when cold put it over the fruit. The sooner strawberries are preserved after being gathered, the better. (See *Cordials.*)

SWEETBREADS. Veal sweetbreads should be cooked while they are fresh; they spoil easily, and then are entirely lost. Trim them, taking out the gristle, and keep them in cold water till they are to be cooked. When to be cooked, split them open, and put them in boiling water; boil them ten minutes, and then take them off and put them in a pan of cold water. This treatment renders them white and firm. They are now ready to be fricasseed, in the same manner as chickens cut up are, or to be fried in butter, or minced for omelets or croquettes.

TOMATO, BAKED. Take tomatoes that are just ripe, remove the skins by pouring hot water over them, but in peeling keep them as whole as possible. Put into a baking-dish grated bread and bits of butter, then a layer of tomatoes seasoned with salt, pepper, and a little powdered sugar, a bit of butter in the centre of each tomato; cover with bread-crumbs as before, then another layer of tomatoes seasoned and finished with grated bread. Tomatoes take a good deal of butter if cooked, and require several hours of slow simmering. This is a very nice receipt.

TONGUES. See under *Beef.*

TRUFFLE. (*Tuber cibarium.*) This vegetable has never been grown in this country, but in France artificial beds have been constructed with a view to produce these luxuries. They grow always several inches below the surface of the ground, so that, in making artificial beds, great care is taken to mark the rows where the truffles are planted. To construct these beds, the best garden-soil is taken, trenched two feet deep, and the stones carefully removed; to this soil is added, in proportions of one tenth, well-powdered snail-shells, two parts of well-pulverized clayey soil, and one part of oak saw-dust, or, which is better, vegetable mould formed from decayed oak or beech leaves, to seven parts of good garden-soil. A southern or warm aspect is to be avoided. The bed should be soaked a day or two, then rows made half a foot in depth, and perfect healthy truffles planted six inches apart. The bed should in dry weather be kept moist.

In Europe dogs are trained to hunt for truffles, discovering them by their scent. Epicures regard them as above all price, and near large cities their cultivation would no doubt amply repay the trouble and expense of preparing a bed. These vegetables grow in clusters.

They are used in cooking precisely as the mushroom, but before cooking they are soaked in warm water for three or four hours; then they require hard brushing with a hair-brush kept for such purposes, to have all the earth removed from them; if peeled, they do not look so handsomely, but taste better. They are frequently gently simmered with a nice seasoning of sweet herbs, spices, a little rich broth, and two or three glasses of sherry, and when tender, baked, after being taken from the stewpan, for about twenty minutes in a moderate oven, then placed in a dish with mashed potatoes for

a border, and the gravy they were simmered in, reduced (by boiling, and a teaspoonful of arrowroot mixed smoothly in a cup with a spoonful of water like mustard) to a jelly, is poured over them hot, just before they are sent to the table.

TURNIPS. Among the sorts used for the table, the Long Yellow French is a favorite. In boiling them, pare off the rind, and equalize their size by cutting the larger ones; put them into a pot filled with water. They should be carefully drained, and can be served whole, or mashed with a wooden spoon, and passed through a colander. When mashed, return them to the stewpan with a piece of butter, a little salt, cayenne, and, if convenient, a spoonful or two of cream; beat the whole together, and put the turnip into a dish, marking the surface in diamonds.

Some boiled dishes, such as leg of mutton or lamb, are sometimes served over a *purée* of turnip; that is, turnip mashed and nicely seasoned with fresh butter, salt, and pepper.

VEAL. The desirable features for this meat are fatness and whiteness, which when conspicuous show that the calf was well fed on rich milk, and judiciously bled. Veal should be fresh; never even in winter should it be more than three or four days old. The meat of the bull-calf is closer in grain, and more red in color, than the cow-calf. To retard change, remove the pipe that runs through the chine of a loin of veal.

In the fore-quarter are the neck, shoulder, and breast; in the hind-quarter, the knuckle, leg, fillet, and loin.

Veal requires to be cooked a good deal, and to be served with piquant sauces.

The leg with the fillet attached to it, the loin, the breast,

and the shoulder, are generally roasted. The leg and breast are stuffed and roasted. The breast is also frequently roasted, with bits of thin slices of sweet salt-pork skewered to it.

Braising is a nice process for many pieces of veal. Braising is merely stewing slowly in a little broth or water, not enough to cover the meat, adding high seasonings, and keeping the stewpan closely covered. Skewers may be laid in the bottom of the stewpan, to prevent the meat from sticking.

Forcemeat for a Fillet.

After the knuckle is sawed off, and the bone taken out of the centre of the fillet, fill the space left with the following stuffing: Chop up half a pound of salt pork very fine, mix with it the same quantity of grated bread-crumbs, one quarter of a nutmeg, two blades of pounded mace, one teaspoonful of sweet-marjoram, the same of summer-savory, a little white pepper, and bind the whole together with three eggs.

Just before the fillet is sent to the table, put into half a gill of boiling-hot water the strained juice of a lemon, and three table-spoonfuls of Harvey's sauce, and pour it over the meat. You may fry some of the stuffing in small balls, and garnish the dish alternately with lemon sliced, and the balls nicely browned in butter.

A large fillet, weighing fourteen or fifteen pounds, will take three hours roasting, a smaller one, two. Baste it with butter, and have a pint of water in the dripping-pan for the gravy, which thicken with a little flour dredged in lightly, and add a gill of wine and Harvey's sauce mixed together. Serve the made gravy in a boat.

Calf's Head and Feet.

Wash them well in lukewarm water, sprinkle pounded

rosin over them, and put them in boiling water, and draw them quickly out. The rosin adheres to the hair, which is thus readily scraped off. Soak them in cold water to give firmness and whiteness.

Calf's head may be boiled plain, in just water enough to cover it, after taking out the eyes, and sawing the bone down through the middle of the head, or it may be stewed with savory herbs and spice, or used for mock-turtle. (See *Soups.*)

The feet are nice fricasseed, boiling them first till the large bones can be pulled out, then flavoring the water they were boiled in with the juice of a lemon, a gill of wine, a large piece of butter with three spoonfuls of flour rubbed into it; let it stew slowly for about twenty minutes, then add three well-beaten eggs, and a cupful of cream that has been previously boiled with a little salt. Shake the stewpan, but do not allow it to boil, putting the egg and cream in just before it goes to the table.

Calf's-Foot Jelly.

To four large, well-cleaned legs put four quarts of water; let it simmer slowly till reduced to two quarts; when the meat is tender and leaves the bones, take off the kettle, and strain the whole through a colander. Let the jelly cool in the same room gradually; when cold remove with a silver spoon all the top-fat; put the jelly into your preserving-kettle, leaving the sediment at the bottom of the dish. Put to the jelly in the kettle the beaten whites and shells of six eggs, the strained juice of three large lemons, the thinly pared rind of one of the lemons, one pound and a half of the best loaf-sugar, crushed with a rolling-pin, one pint of white wine, a large nutmeg, a teaspoonful of ground cinnamon. Allow it to melt gradually, and do not stir it after it has melted; as the scum accumulates on one side, take it off. Have ready two straining-bags made of cotton or linen, sewed on small wood-

en hoops; into one bag put a large teaspoonful of brown sugar if you wish a deep color to the jelly, which is to be poured upon it. Do not squeeze the bags, it will make the jelly muddy. When the jelly is in, cover the aperture of the bags. Should it not run clear, return it to the bag. When the jelly has passed through the bags, let it remain in the same room till it becomes solid. When cool, fill up glasses with a spoonful from one dish, and from the other alternately, or, if you choose, keep them in separate glasses. Calf's-foot jelly looks best broken up in glasses.

A light-colored jelly is made from the feet of hogs, and the exquisite amber-colored jelly often seen at the shops is prepared from the feet of sheep.

Where these jellies are designed for moulds, several bits of isinglass are put in to boil with the feet.

WATCHES. Women's watches are so proverbially out of order, that nautical men have framed a proverb which says, "A ship, like a lady's watch, is always out of repair."

We have selected the following rules of Edward Geafton's as useful for those who carry watches.

Wind your watch as nearly as possible at the same time every day.

Be careful that your key is in a good condition, as there is much danger of injuring the machine when the key is worn or cracked; there are more mainsprings and chains broken through a jerk in winding than from any other cause, which injury sooner or later will be the result if the key is in bad order.

As all metals contract by cold and expand by heat, it must be manifest that to keep the watch as constantly as possible at one temperature is a necessary piece of attention.

Keep the watch as nearly as possible in one position, —

that is, if it hangs by day, let it hang by night against something that is soft.

The hands of a pocket chronometer or duplex watch should never be set backwards; in other watches this is a matter of no consequence.

The glass should never be opened in watches that set and regulate at the back.

One or two directions it is of vital importance that you bear in mind.

On regulating a watch, should it be going fast, move the regulator a trifle towards the slow, and if going slow, do the reverse; you cannot move the regulator too gently or slightly at a time, and the only inconvenience that can arise is, that you may have to perform the duty more than once. On the contrary, if you move the regulator too much at a time, you will be as far, if not farther than ever, from attaining your object; so that you may repeat the movements until quite tired and disappointed, stoutly blaming the watchmaker while the fault is entirely your own.

Again, you cannot be too careful in respect of the nature of the watch-pocket; see that it be made of some material that is soft and pliant, such as wash-leather, which is the best, and also that there be no flue or nap that may be torn off when taking the watch out of the pocket.

Cleanliness, too, is as needful here as in the case of the key before winding; for if there be dust or dirt in either instance, it will, you may rely upon it, work its way into the watch as well as wear away the engine turning of the case.

WINE. (*Vinum.*) Beside the juice of the vine, we find many fruits and plants have always been subjected to the processes of fermentation as far back as the memory of man runneth, in order to produce the liquor called wine. As processes are discovered for preserving fruit and vegetables

in their native spirit without loss of bulk or flavor, as healthy mental excitements become generally diffused, and motives for self-control increase in a secure ratio, we shall, we confidently hope, find this instinct of man dying out. Taking things as they now are, we shall make a few general remarks upon wines.

It is only by a moderate use of wine that persons can ever become good tasters. A wine-merchant in extensive business once remarked to the author that he never swallowed his wines when judging of their relative merits, knowing that if he did he should soon lose his nicety of taste. The ostentation which induces people to produce several varieties of wine at one dinner merits, therefore, censure for more reasons than one; after one or two glasses, the nerves of the stomach are over-stimulated.

Port-wine, on account of the imperfectly combined alcohol always present in it, is more injurious to stomach and understanding than Sherry, even when this is of like strength with the Port. Claret and Rhenish are the most innocent. Champagne produces but a temporary excitement, followed by no after consequences of serious derangement, unlike in these respects the wines of Oporto, which, abounding in astringent qualities and uncombined brandy, are pernicious in their effects as a daily drink, even when accompanied with great exercise. The Spanish wines, which include the Sherries, are strong, heady wines, which should be diluted with water, excepting when ordered as medicine. Madeira diluted is said to be a good wine for the dyspeptic, provided there is no disposition to hypochondriasis or melancholy. The Bordeaux wines, the best light wines of the Rhine and the Moselle, are, for daily use, the least injurious of all wines; they are said to have the little alcohol they contain wholly combined. They contain tartaric acid, and thus tend to diminish obesity. Sweet wines disorder the stomach, and their

free use induces intoxication and subsequent suffering as great as that brought on by stronger wines.

Wine kept in casks should be closely stopped, set in a place where the temperature will be equal, and where it will not be subjected to agitation, which induces precipitated substances to mix again with the wine.

To prevent wine, on putting it into a new cask, from combining with the properties of the wood, and acquiring a taste of the cask, the inside of the cask or hogshead should be charred.

While old Rhenish wines kept in the barrel are said to lose one half of their original alcohol, wines put in bottles not corked, but tied over with bladder, increase in strength, that membrane giving passage to water, but not to spirit. Wines, though they part with their strength, improve in other qualities by being kept in casks.

Travellers complain loudly of the adulteration of wine in Italy, and find it possible to obtain good wine only from the proprietors. Red wine is there often adulterated with sulphate of zinc, and the white with the acetate of lead, both virulent poisons, often combined in these wines in such quantities as to induce violent deaths.

The processes for wine-making, with slight modifications, are the same, whatever fruit or plant is employed. In the best wine countries, the grape-vine is grown only three or four feet high, and the bunches nearest the soil, provided they do not touch, are always considered the richest.

The strength of wines of the same country and grape vary. Grapes grown in a light, dry soil, with a southern exposure, yield wine highly charged with alcohol, while grapes of the same species, cultivated in a strong, damp soil, with a different aspect, give a wine weak in alcohol. Though the strength of wine is regulated by alcohol, its quality and its price are decided by its odor and taste; alcohol furnishes

body and strength, but mellowness and perfume are characteristics mostly sought for in dinner wines. (See Chaptal and Johnson's Encyclopædia.)

Among home-made wines, Gooseberry wine is thought most to resemble Champagne.

Champagne Wine of Gooseberries.

Gather on a dry day one bushel of the best cultivated gooseberries, just before they turn to ripen. Bruise them very thoroughly; then pour upon them three gallons of scalding water, and put them into an open headed cask that has been previously charred. Cover the cask with a blanket; stir them daily two or three times for four days; press them, and to every gallon of the juice put three pounds of loaf or good white Havana sugar powdered; let it dissolve. After it has fermented for twelve or fourteen days, being filled daily so that the impurities may run over, put the bung on lightly, gradually making it firmer, till at the third day it is driven in perfectly air-tight. Let it stand in the same temperature without being stirred till December, when, on a clear, dry day, it should be racked off, and have one eighth of the best brandy added to it. It may now be again left till June, when, if not found bright and clear, it may be refined by the beaten whites of six eggs. Bottle it in fresh bottles with new corks, and after corking them dip the neck of the bottle in bottle-cement.

WORMS, SLUGS, &c. These frequently destroy the appearance of garden walks, and some of the slug and snail kind infest plants. To destroy them, water the soil with salt and water, putting not more than two pounds of salt to four gallons of water. Slices of turnips scattered over beds of plants will gather slugs and snails, which thus, on the following morning, may be removed and destroyed.

Rats and mice, it is said, may be driven from fields and barns by the presence of the common mullein plant, and also of garlic bulbs, if laid round in small stacks, while the oil of rhodium and oil of anise-seed, if rubbed on meat, will attract rats unfailingly to a trap.

Tansy leaves, as also elder and walnut leaves, either in their actual state or as a decoction, will keep flies from animals and meat.

THE END.

S. P. L. Bindery,
OCT 14 1884